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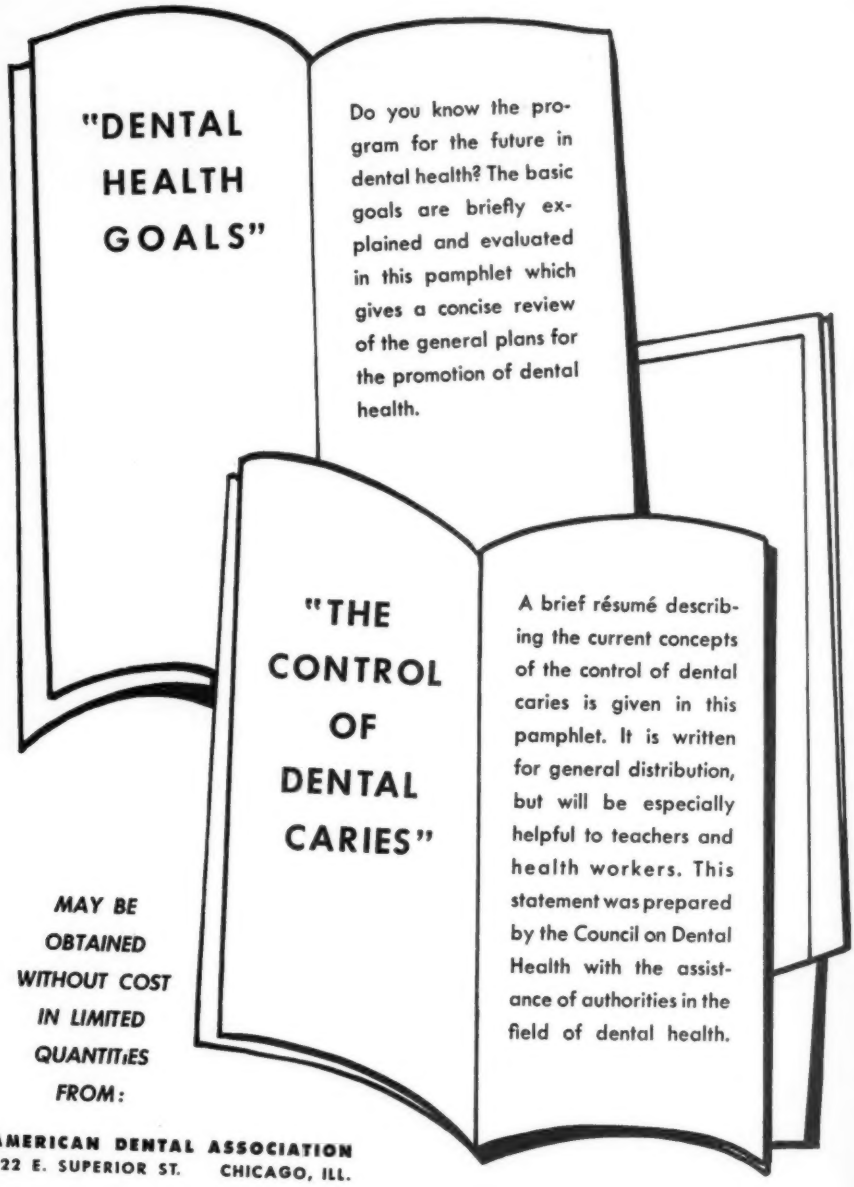
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PERIODONTAL DISTURBANCES: PRACTICAL MANAGEMENT

Balint Orban, M.D., D.D.S., Chicago

A PROPER diagnosis and classification of each case is the indispensable premise for the practical management of periodontal diseases. Correct diagnosis presents the possibilities and limitations of treatment and prognosis of the case. Some years ago a new classification of periodontal diseases was attempted,[1] based on the pathologic conditions which occur in the supporting tissues of the teeth, the etiologic factors involved and the clinical features of the case. Periodontal diseases were classified in five groups: inflammatory, degenerative, atrophic, hyperplastic and traumatic (see table). The terms used in this classification were recommended by the Nomenclature Committee of the American Dental Association[2] and the Nomenclature Committee of the Academy of Periodontology.[3]

It is of great importance in periodontal research as well as in practice that a more unified nomenclature be adopted, thereby dispensing with the necessity of defining each term as used and thus eliminating much confusion. However, a term should not be adhered to if research or clinical observation suggests a change. In the classification of 1942, the term "hypertrophy" was used to designate overgrowth of the gingival tissue so characteristic of certain cases. This has been criticized because the correct meaning of hypertrophy is an overgrowth of an organ by enlargement of its specific tissue elements, an enlargement which serves a useful function, as for example the enlargement of the heart in hypertension or the enlargement of muscles in extensive use. However, if the enlargement of an organ is due to a multiplication of its structural elements or to an accumulation of foreign elements, such as fluid and inflammatory cells, an enlargement which does not necessarily serve an increased and useful function of the organ, the term "hyperplasia" should be used. With acknowledgment of the correctness of this interpretation, the term "hypertrophy" is replaced by "hyperplasia." No other

Department of Histology, School of Dentistry, University of Illinois.

1. Orban, Balint, Classification and Nomenclature of Periodontal Diseases. *J. Periodont.* 13:88 (July) 1942.

2. Report of Nomenclature Committee. *J.A.D.A.* 30:1112 (July) 1943.

3. Report of Nomenclature Committee. *J. Periodont.* 14:14 (October) 1943.

changes of the 1942 classification seem to be necessary at this time.

Gingival Pockets

Before a case of periodontal disturbance is treated a classification should be made according to the different pathologic groups outlined in the table. A careful analysis must be made of the case history and clinical features, such as color, texture and other conditions of the gingival margin as well as other parts of the oral mucous membrane. Depths of the gingival pockets and nature of the exudate from the pocket must be carefully studied. Roentgenographic appearance of the alveolar bone and the roots and their interrelation is of great importance. Looseness of teeth should be checked and occlusal relations studied in centric occlusion as well as in lateral and forward movements. Usually a diagnosis can be made after the first examination of the patient although sometimes repeated examinations are required. The clinical evaluation of the case affords in large measure the necessary basis for diagnosis, planning of

Periodontal disturbances: Pathologic conditions and causes

1. Inflammation	Gingivitis			Periodontitis	
	Local	Systemic		Simplex	Complex
	Calculus Food impaction Irritating restorations Drug action	Pregnancy Diabetes Other endocrine dysfunctions Tuberculosis Syphilis	Nutritional disturbances Drug action Allergy Hereditary Idiopathic	Secondary to gingivitis Etiologic factors similar to gingivitis	Secondary to periodontosis Etiologic factors similar to periodontosis
2. Degeneration	Periodontosis				
	Systemic disturbances a. Diabetes b. Endocrine dysfunctions c. Blood dyscrasias d. Nutritional disturbances e. Nervous disorders		f. Infectious diseases (acute and chronic) Hereditary Idiopathic		
3. Atrophy	Periodontal Atrophy				
	Local trauma (toothbrush) Presenile Senile		Disuse Following inflammation Idiopathic		
4. Hyperplasia	Gingival Hyperplasia				
	Chronic irritation (see inflammation) Drug action (Dilantin sodium) Idiopathic (elephantiasis, fibrosis)				
5. Traumatism	Periodontal Traumatism				
	Occlusal trauma; primary or secondary				

treatment and prognosis. If systemic disorders are apparent and medical investigation is necessary, the patient should be so advised. The medical and laboratory check-up should include a thorough hematologic examination and blood chemistry. Anemia, leukemia and agranulocytosis should be considered. Blood sugar and vitamin C blood level should be determined. Urinalysis is often necessary to check for diabetes or kidney diseases. Functional tests of the liver should be requested. Metabolic and endocrine disorders also may have a bearing on periodontal disturbances. In selected cases some or all of these examinations are necessary, but local treatment should be started at once. Only in rare cases is it necessary to await a medical report.

Local Treatment

In local treatment deep gingival pockets should be eliminated, thus removing infection and inflammation from the gingiva. Hygienic conditions in the oral cavity can be established and maintained by periodical removal of tartar and its rapid formation can be prevented by proper home care. Traumatic occlusion and destruction of periodontal membrane and alveolar bone can be eliminated by (1) proper grinding of the teeth, (2) replacing missing teeth and (3) raising or lowering of the bite as the case might require.

In approximately 85 per cent of all cases, the treatment outlined can be regarded as sufficient. Approximately 85 per cent of all periodontal disturbances are caused mainly by local factors.[4] Only in the remaining 15 per cent of periodontal diseases do systemic factors play a more important role. Local treatment in these cases might also lead to arrest of the process because the widening of the periodontal membrane, migration of teeth, epithelial proliferation and pocket formation[5] might have completely subsided by the time subjective symptoms bring the patient to the dentist, sometimes years after the actual but unrecognized onset of the degenerative process. Periodontal diseases, with the exception of ulcerative gingivitis (Vincent's type of infection) and acute periodontal abscess (lateral abscess), are painless. Only disturbing incidents such as disfiguring migration of teeth, development of an acute abscess, obvious halitosis, bad mouth taste, bleeding gums or loosening of teeth bring the patient to the dental office. All of these conditions are late manifestations.

The elimination of the deep gingival pockets was described in a previous paper.[6] In this discussion the specific subjects will be: To what extent should a dentist go in eliminating a pocket by surgical means? What are the indications and limitations of this procedure?

Surgical Treatment

The first question that arises is how deep must a pocket be to necessitate surgical intervention. There is only one condition in which surgical treatment is inevitable: isolated pockets limited to one tooth resist conservative treatment because the attachment of the gingiva to neighboring teeth excludes the possibility of shrinkage of the tissues. An answer in exact millimeters or other system of measurement cannot be given as to how deep a pocket must be to necessitate surgical intervention. There are cases where relatively shallow pockets of 2 to 4 mm. depth must be cut away, and in other cases pockets of 4 to 8 mm. disappear by subgingival scaling and curettage, medication, massage and proper home care. Chronic inflammatory

4. This holds true even if systemic factors are indirectly responsible. Calculus is a direct and local cause for gingivitis though systemic factors may be responsible for the quantity and quality of the calculus.

5. Orban, Balint, and Weimmann, J. P., Diffuse Atrophy of the Alveolar Bone. *J. Periodont.* 13:31 (January) 1942.

6. Orban, Balint, Surgical Gingivectomy. *J.A.D.A.* 32:701 (June 1) 1945.

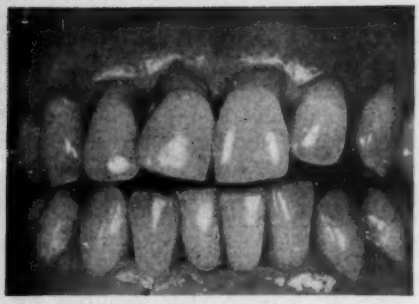

Fig. 1.—(Case 1) Woman 40 years of age with periodontitis complex. Depth of pockets, 3 to 8 mm.

conditions are especially slow in response, whereas acute, hyperemic, edematous, easily bleeding gingival tissue will yield quickly. In many cases one should start with the conservative method and if no satisfactory result is obtained within a reasonable time surgical treatment should be performed. No damage can be done by delaying surgical treatment and often limited improvement by conservative methods is a desirable preparation for surgical procedures. However, if only a limited amount of time is available for the completion of the case a surgical operation may follow hygienic treatment at once. The main purpose of the treatment is to reduce the pocket to zero.

The second question which arises is how deep a pocket may be for successful elimination by surgical intervention. Generally, one can state that as long as the bottom of pocket does not reach or has not passed the apical foramen the pocket might be eliminated successfully, provided it is limited to one surface of the root only and that it does not extend into the trifurcation of an upper molar.

Reports of Cases

The following case histories may serve to illustrate the general principles that are set forth in the preceding paragraphs:

Case 1

A woman, aged 40 (Fig. 1), had a chronic inflammation of the gingiva with pockets varying from 3 to 8 mm. in different regions. The roentgenogram reveals considerable bone resorption of the entire alveolar process in both jaws (Fig. 2). A diagnosis of periodontitis complex was made (on the basis of periodontosis). The medical history gave no clues. Attempts to find systemic disturbances failed.

A gingivectomy was performed first in the right lower jaw and then in the right upper jaw and was followed by the same procedure on the left side. A surgical cement pack was applied after gingivectomy (Fig. 3A). The

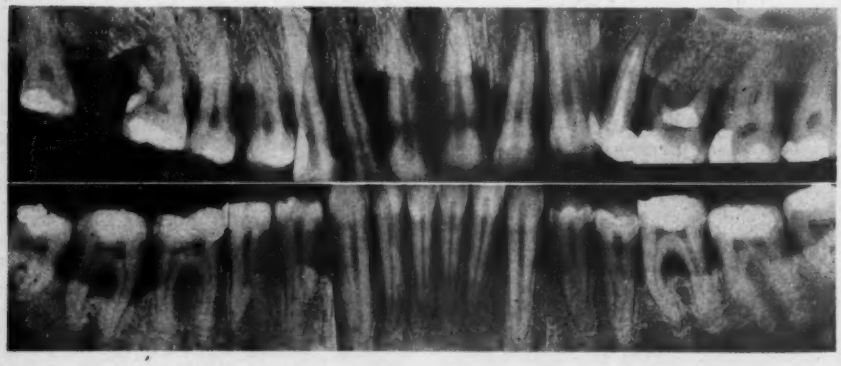

Fig. 2.—(Case 1) Roentgenogram showing degree of bone resorption

Fig. 3.—(Case 1) A, surgical cement pack in right upper jaw after gingivectomy. B, wound surface after removal of surgical pack. C, application of trichloracetic acid to wound surface. D, application of trichloracetic acid to wound surface after gingivectomy in the entire jaw, on the labial side and E, on the lingual side. F, blanching of gingiva after application of hydrogen peroxide 30 per cent

pack was changed twice a week for two weeks. Each time the wound surface (Fig. 3B) was treated with 30 per cent trichloracetic acid (Fig. 3C). Figures 3D and 3E show the trichloracetic acid applied in the entire upper jaw on the labial as well as on the lingual side. When the healing had progressed satisfactorily and packing was no longer needed treatment with hydrogen peroxide 30 per cent was started (Fig. 3F) and carried out twice weekly for three weeks, followed each time by the application of trichloracetic acid. A comparison of the mouth six weeks after gingivectomy (Fig. 4) with the original picture (Fig. 1) shows the new location of the gingival margin as well as the fact that the incisal edges of the teeth have been ground to improve esthetic appearance. The patient was accustomed to drawing her upper lip high in smiling, exposing the root surfaces as well as a part of the gingiva (Fig. 4, left) and it was necessary to make an acrylic splint to camouflage the exposed roots and large interdental spaces (Fig. 4, right).

Fig. 4.—(Case 1) Left: Result of treatment (smiling); compare with Figure 1. Right: Acrylic splint to camouflage exposed root surfaces and wide interdental spaces

Case 2

A similar but not quite as severe condition was observed in the case of a woman 30 years of age (Fig. 5). The pockets in the lower incisor region were of considerable depth on the labial, approximal and lingual sides. In the upper jaw deep pockets were present mainly on the lingual sides of the teeth. Figure 6 shows the roentgenogram of the patient.

Gingivectomy was performed in the lower front region and on the lingual aspects of the upper teeth. In two months complete healing occurred (Fig. 7, left). The left lower lateral incisor, which was very loose at the beginning of the treatment, became considerably tighter after treatment. However, this tooth was still loose and it seemed advisable to construct a removable splint for the front teeth (Fig. 7, right). This type of immobilization of the teeth could be applied since there was no exposure of the lower teeth when the patient talked or laughed.

Fig. 5.—(Case 2) Woman 30 years of age with periodontitis complex. Pockets in the lower front region all around the teeth and on the lingual side of the upper teeth

Isolated Pockets

Rarely does a case of periodontitis complex (advanced case of periodontosis) involve the entire dentition as in the first case. Usually even fewer teeth are attacked than in the second case presented here.

Case 3

In the case of a man, aged 28, only single teeth were affected (Fig. 8). Only the supporting tissue of two upper teeth, the left central incisor and the right lateral incisor, are affected showing bone resorption and pocket formation. The pockets, localized to the mesial aspects of both teeth, were removed by surgical means. The right central incisor showed no symptoms of the disease. This case disproved the possibility of traumatic influences producing this disease. Roentgenograms of the patient at the age of 23 revealed no bone resorption in the area of these teeth. At present the patient is 30 years old, in good health, and recalls no illness for the past ten years. The gingiva is in good condition since the gingivectomy was performed.

Case 4

Similar formations of isolated pockets occurred in the following cases. One single deep pocket developed on the labial aspect of the right upper central incisor of a man 50 years of age (Fig. 9). No other front teeth show any pocket formation. There were two moderately deep pockets in the molar region.

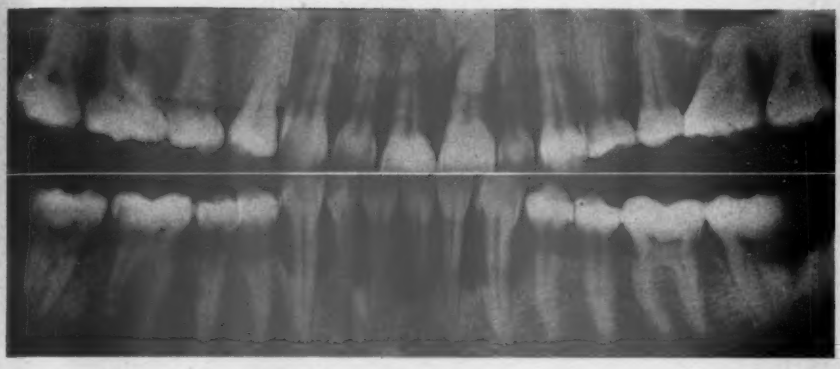

Fig. 6.—Roentgenogram of teeth shown in Figure 5

Case 5

In another case the left upper central incisor of a man of the same age, 50 years, presented a deep pocket (Fig. 10) which extended from the labial to the mesial surface. There has been no recurrence of disease since operation. Fortunately both of these individuals are men and have long upper lips and do not show the area of the operation when talking or laughing.

Case 6

Another patient, a woman in her thirties, was less fortunate (Fig. 11, left) since the root surface of the right upper cuspid was quite visible after surgical treatment. A small acrylic splint attached with a thin clasp to the bicuspid covered the root surface satisfactorily (Fig. 11, right).

Esthetic Considerations

In performing a gingivectomy in the anterior region, esthetic appearance is of great importance. Patients often ask if such treatment will affect their esthetic appearance. They should be informed of the anticipated results of the gingivectomy. If the disfiguration threatens to be of considerable extent and if a correction by splint would be impossible, the tooth must be sacrificed and the patient advised of the technical replacement. He should know that there is no compromise possible in treating a tooth with a deep pocket. Treatment is necessary because of the potential danger of an in-

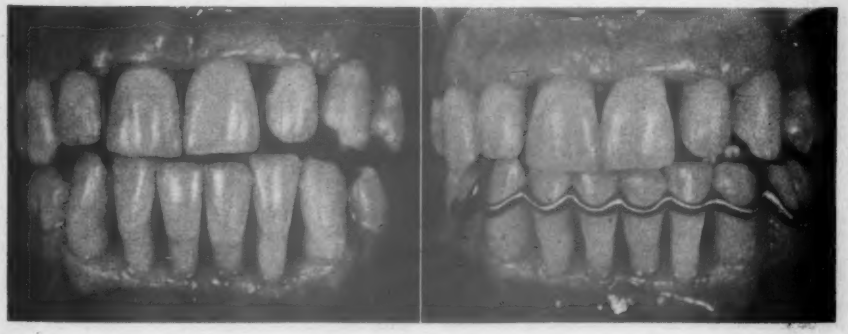

Fig. 7.—(Case 2) Left: After gingivectomy. Right: Removable splint used to immobilize the lower front teeth

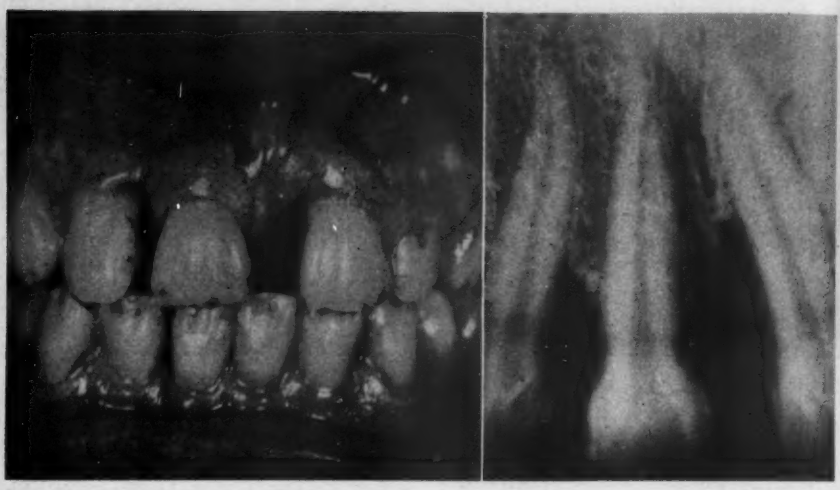

Fig. 8.—(Case 3) Man, aged 28 years. Deep pockets localized to the mesial aspects of two teeth only. Left: After gingivectomy. Right: Roentgenogram of involved area

fected pocket to the general health of the patient. Nothing but the total elimination of the pocket is satisfactory. There are only two possible ways of reaching this end: (1) removal of the soft tissues forming the pocket or (2) removal of the tooth itself. Therefore clarification of the situation is of great value as a psychologic preparation of the patient.

Case 7

Sometimes the pocket extends from the lingual to the proximal surface of the tooth but this seldom causes esthetic disfiguration. An example is the case of a woman 40 years of age. A fistula developed on the labial side of an upper incisor from a lingual pocket. The pocket was excised and the fistula healed (Fig. 12, A, B and C). If the pocket is restricted to the lingual side of the tooth esthetic problems are not involved.

Fig. 9.—(Case 4) Pocket localized to labial aspect of right upper central incisor

Fig. 10.—(Case 5) Pocket localized to labial-mesial aspects of left upper central incisor

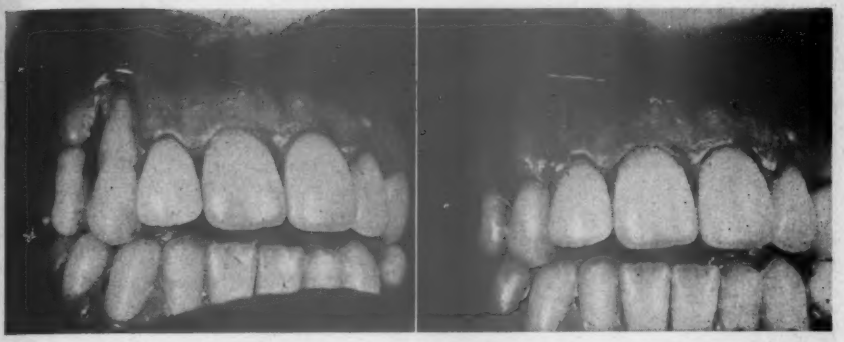

Fig. 11.—(Case 6) A woman, in her thirties, with pocket localized to right upper cuspid. Left: After gingivectomy. Right: Acrylic splint covers exposed root surface

Case 8

Deep pockets which frequently develop on the lingual aspect of upper molars can be eliminated by surgical intervention. In the case of a patient 50 years of age (Fig. 13) deep pockets on the lingual roots of the first and second molars were eliminated by surgical means, exposing a large area of the root surface.

Involvement of Bifurcation

When pockets extend into the interradicular area of upper molars, the prognosis is unfavorable and extraction should be advised. In the lower jaw, molars with involvement of the bifurcation can be saved for many years. Such a case

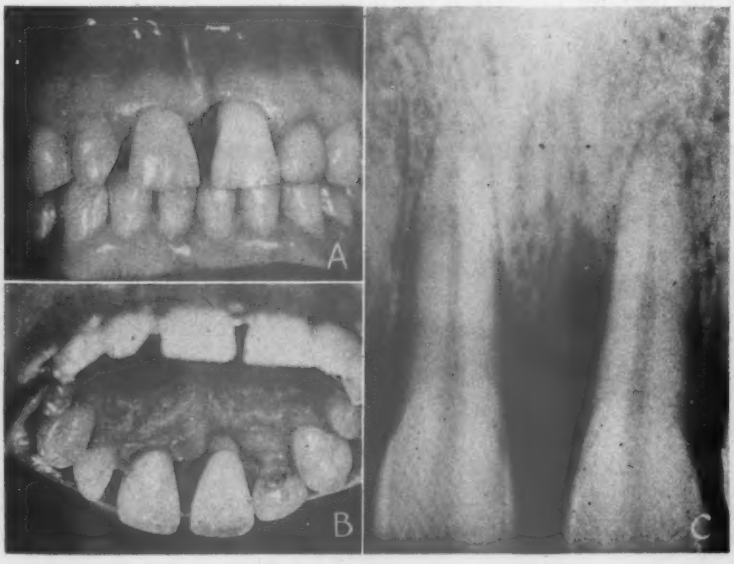

Fig. 12.—(Case 7) Deep pocket on lingual-mesial aspect of left upper central incisor. A, labial view. B, lingual view. C, roentgenogram of involved area

Fig. 13.—(Case 8) Exposed lingual root surfaces of upper molars after gingivectomy

was presented by the author several years ago[7] and the tooth is still functioning. The gingiva is in good condition and the patient has no cause for further complaints.

7. Orban, Balint, To What Extent Should the Tissues Be Excised in Gingivectomy? *J. Periodont.* 12:83 (July) 1941.

Case 9

A similar case is that of a woman 30 years of age (Fig. 14). The second molar is missing and the patient wears a small removable bridge attached to the first and third molars. The bifurcation of the first molar was involved (Fig. 14, left) causing repeated attacks of painful swelling in this region. The gingiva was resected on the buccal as well as the lingual sides and a portion of the crest of the inter-radicular septum removed with a small sharp chisel. The space and wound surface were packed with surgical zinc oxide cement and postoperative treatment was carried out following the principles described in previous publications.

The exposed bifurcation (Fig. 14, right) is kept clean by the use of interdental aids. The tooth is expected to function with complete satisfaction to the patient for a number of years.

Case 10

An extreme case of localized pocket formation concerns a man 45 years of age (Fig. 15). Deep pockets had developed between the lower lateral incisors and cuspids on both sides, somewhat deeper on the right. The incisors and bicuspids and distal surfaces of the cuspids showed no pocket formation and no bone resorption. The gingivectomy was performed because the patient did not want to have any of his teeth extracted. Since the lower teeth were not visible even in forced movements,

Fig. 14.—(Case 9) Left: Pocket extending into bifurcation of lower molar. Right: After treatment

esthetic considerations did not contraindicate this procedure.

Case 11

In surgical elimination of pockets we are often advised to make a straight incision following the alveolar crest but this is not the method I advise. Instead, the incision should follow the bottom of the gingival pocket. If the pocket on one tooth extends further apically than on the others, the incision should be made accordingly (Fig. 16). The patient was completing a pregnancy prior to the operation. Though it is a general observation that periodontal disturbances often increase during pregnancy, the patient did not show any change for the worse.

Differentiation

The question is often asked, "How long after an extensive gingivectomy will the teeth function satisfactorily?" This question cannot be answered with any degree of certainty but the analysis of the individual case permits the differentiation of favorable from unfavorable cases. If the factor primarily responsible for the separation of the epithelial attachment to the tooth and pocket formation has ceased to be active by the time of treatment, the prognosis is good. The prognosis of a case treated in the

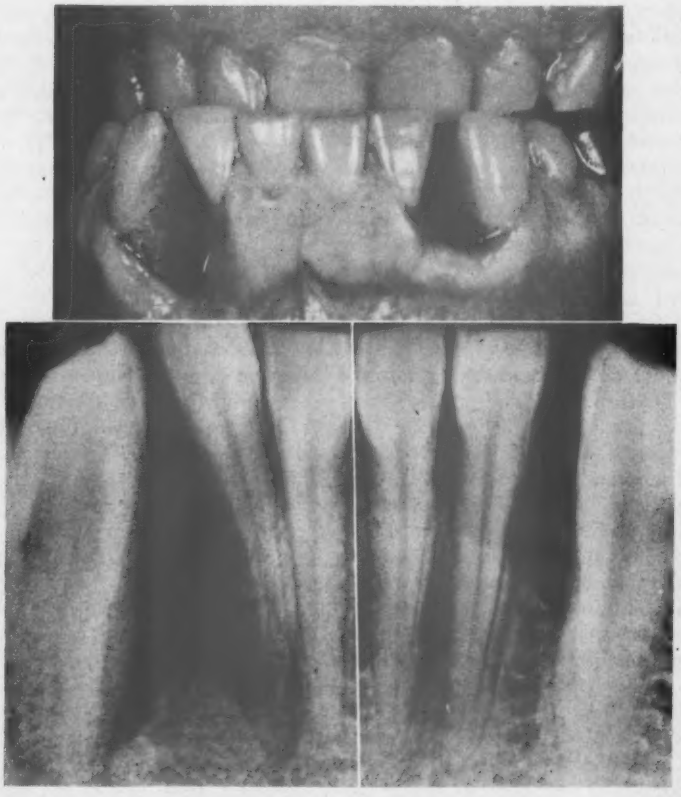

Fig. 15.—(Case 10) Extremely deep pockets localized to the interproximal space of the lower lateral incisors and cuspids. Above: After gingivectomy. Below: Roentgenogram of involved area

Fig. 16.—(Case 11) Left: Periodontitis before gingivectomy. Right: After gingivectomy. Line of gingivectomy follows bottom of pockets

acute stage of the disease is rather questionable. The prognosis is unfavorable if the periodontal disease is complicated by a chronic systemic factor. Such cases are rare and often cannot be diagnosed. The plan of treatment should take into consideration such factors, even if they are vague. It is imperative that the patient be informed of probable results. Failures will become more and more infrequent with the progress in classification and analysis of each individual case.

The question of "reattachment" of the gingival tissues to the cementum is often discussed in connection with gingivectomy. If reattachment could be assured it would be preferable to the complete removal of the pocket-forming soft tissues. Theoretically, such a reattachment is possible if all epithelium on the deep surface of the gingival pocket has been removed. A blood clot in the pocket could be "organized" and replaced by proliferating connective tissue, which then could produce a new layer of cementum on the formerly exposed surface. Thus fibers of the connective tissue could be embedded in the newly formed cementum and this would constitute a true reattachment. I have observed rare instances in which such a process took place, but only in cases of acute periodontal abscess. In chronic periodontitis or periodontosis, which constitute about 99 per cent of periodontal cases with deep pocket-formation, it is unbiologic to expect reattachment. The connective tissue is in a state of chronic inflammation, the circulation is poor and the root surface is necrotic and infected because of long exposure to the saliva and the infected contents of the pocket. In such instances reattachment is not likely to occur. It is therefore inadvisable to lose time with attempts to effect reattachment, and measures should be instituted to eliminate by medication or surgical procedures the soft tissue bounding the pocket.

Conclusions

Without proper diagnosis and classification of periodontal disease prognosis remains vague and treatment a matter of trial and error. It is impossible to give definite figures for the maximum depth of a pocket which could be eliminated by nonsurgical methods. It is also impossible to limit the depth of a pocket to which surgical treatment may be attempted successfully. Choice of method and its limitations are dictated by other factors beside depth of the pocket.

Proper postoperative treatment is of paramount importance for the success of surgical operations. Without cooperation of the patient in carrying out home care instructions no permanent success can be achieved, regardless of the type of treatment performed.—*180 North Michigan Avenue.*

ANOMALIES OF DENTITION SUGGESTIVE OF SYPHILITIC HEREDITY, WITH CLEFT PALATE AND HARELIP

D. K. Campbell, D.D.S., Brooklyn

THE occurrence of harelip first was called to my attention by my father, the late Dr. W. A. Campbell, when I was beginning the study of dentistry. A dentist of his acquaintance did some work on the teeth of a patient who was well advanced in pregnancy. The child, which was born shortly afterward, had a harelip, whereupon the woman accused the dentist of being responsible for the deformity through causing a maternal impression by pulling on her lip while he was working on her teeth. The patient had no regard for the fact that the incident occurred long after the time of closure of the fetal maxillary and nasofrontal processes. My father dismissed the notion of supposed maternal impressions and said that the child's deformity probably was attributable to the known syphilis of its father.

Etiology

The immediate cause of harelip is faulty fusion of the median nasal and maxillary processes, which normally fuse at the end of the tenth fetal week. In cleft palate, improper union of the lateral palate processes is present. Associated defects, such as bifid uvula, high arched palate, unusual spacing and deformities of the front teeth and absence of the lateral incisors, also may be present.

Logan and Kronfeld[1] have noted during a long period of observation of patients with cleft palate that underdevelopment of the upper jaw and marked irregularity of the teeth accompany this defect. Lucas[2] stated that "a congenital absence of an upper lateral incisor may foretell the probability of cleft-palate and harelip in a succeeding generation."

As to the more remote causes of both harelip and cleft palate, there is no agreement among authorities. These defects are variously ascribed to a great number of diverse conditions, such as heredity, defective nutrition, uterine inflammation, syphilis, endocrine disturbances, racial mixtures and other equally unrelated factors.

Cavallaro[3] regarded cleft palate and harelip as attributable to congenital syphilis. He commented that "at the end of the tenth week of fetal life the maxilla and the palatal vault are perfectly developed through the adhesion of the two apophyses of the maxilla with the incisal bone and the vomer." Consequently, arrest of development is due to factors, such as the toxins of syphilis, operating before that time. Syphilis has a great affinity for the intermaxillary bone.

Fournier[4] calls the pathologic absorption of the dental arches as a result of

1. Logan, W. H. G., and Kronfeld, Rudolf, Development of the Human Jaws and Surrounding Structures from Birth to the Age of Fifteen Years. *J.A.D.A.* 20:379 (March) 1933.

2. Lucas, R. C., On the Congenital Absence of an Upper Lateral Tooth as a Forerunner of Harelip and Cleft-Palate. *Tr. Clin. Soc. London* 21:64, 1888.

3. Cavallaro, Joseph, Syphilis in Its Relations to Dentition. *D. Cosmos* 50:1161, 1325 (November & December) 1908; 51:16, 156 (January & February) 1909.

4. Fournier, Alfred, Syphilis Heréditaire tardive. Dents syphilitiques. *Ann. derm. et syphil.* 4:485, 561 (September & October) 1883.

Fig. 1 (case 1).—Mother had notched upper and lower central incisors and cuspids and excessive gum recession

syphilis a "buccal perforation."

Davenport,[5] while admitting that syphilis and alcohol are capable of producing the abnormalities of harelip and cleft palate, believed in the genotypic basis of these defects. Other geneticists also regard cleft palate as a true monstrosity which has its beginning at the very moment of conception.

Brown[6] stated that "any consideration of the etiology of harelip is extremely difficult without the knowledge of family dental conditions and family pathology." This statement is of great significance to me, since in forty years of dental practice I have had the apparently rare opportunity of observing two, three and even four generations of families and frequently also their relatives. Of 1,200 related persons, there have been in my office 183 of the first generation, 253 of the second, 73 of the third, 10 of the fourth and 2 of the fifth. In many families it has been possible to trace dental and other deformities from ascendants to descendants and vice versa. A defect noted in a grandparent may be reflected in the grandchildren, and abnormalities in children may be traced to a grandparent. However, defects seen in various members or generations of families need not be the same, and rarely are, to signify that they originate from the same underlying cause.

The most obvious diagnostic sign is the presence of Hutchinson's[7] teeth. Families in which these teeth occur may have an

5. Davenport, C. B., Heredity of Disease. *J.A.M.A.* 87:664 (August 28) 1926.
6. Brown, G. V., *The Surgery of Oral and Facial Diseases and Malformations.* Philadelphia: Lea & Febiger, 1938, p. 527.

7. Hutchinson, J., Report on Effects of Infantile Syphilis in Marring the Development of the Teeth. *Trans. Path. Soc. London* 9:449, 1857.

Fig. 2 (case 1).—Left: Father had well formed teeth but had a Carabelli cusp on the upper first molar. Right: Paternal grandmother had a Carabelli cusp on the upper first molar

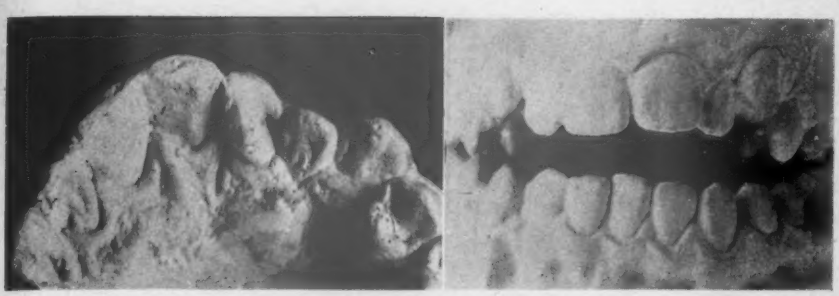

Fig. 3 (case 2).—Left: Large rotated supernumerary tooth between the left upper lateral and central incisors. Right: Brother had crowded teeth and an open bite

astonishing incidence of oral abnormalities.[8] If the dentist has the opportunity to observe for three generations a large family in which a parent has Hutchinson's teeth, he may see the following phenomena: The parent's brothers, sisters, children and nephews and nieces have dental anomalies. Usually this is true in a lesser degree of his grandchildren and grand nephews and nieces. In such a family any of the dental and oral deformities may be noted. These include Hutchinson's teeth, Mozer's[9] central incisors turned on their axes, reduction in size of, or missing, lateral incisors (Chompret),[10] Fournier's mulberry molars, Carabelli cusp on the upper first molars, peg-shaped and impacted third molars, absence of upper third molars, spaced teeth, macrodontia and microdontism, excessive decay, early complete exfoliation, malocclusion, prognathism, open bite, high arch, speech defects, harelip and cleft palate.[11,12]

Among 3,000 patients, 2,000 of whom were carefully examined for dental and oral defects, I have observed 5 cases of harelip, 2 of which were associated with cleft palate. This proportion of between 1 and 2 to 1,000 cases is in accordance with the general statistics of occurrence. Reports on 4 of these cases with references to conditions found in parents and other near relatives are included in this paper. Since nothing was known of the patient's family in the fifth case, it was omitted as of no value in a study of related pathologic conditions.

Reports of Cases

Case 1.—A boy, whose parents also were patients of mine, had a typical left sided harelip and cleft palate.

The mother had exceptionally heavy notches on the upper central incisors (Fig. 1, left), which were typical of Hutchinson's teeth, with additional notching of the cuspids and lower incisors (Fig. 1, right). Before the age of 30 she had complete exfoliation of all teeth. This development conforms with Cavallaro's[8] remark that hereditary syphilitic teeth are vulnerable and that "they live and die."

The boy's father and the father's mother and sister, all of whom had well formed teeth, had Carabelli cusps on the upper first molars (Fig. 2). Parounagian[13] wrote, "According to my own observations on great numbers of known congenital syphilitics, presenting unmistakable signs and symptoms of the disease, I am convinced that the tubercle of Carabelli

8. Campbell, D. K., Dental Deformities in Children of Parents with Hutchinson's Teeth. *D. Cosmos* 75:348 (April) 1933.

9. Mozer, G., Contribution à l'étude clinique dans l'hérédosyphilis. Thèse de Paris, 1901.

10. Chompret, Irrégularitié dans le nombre des dents. *Rev. de stomatol.* 9:31, 85, 1902.

11. Campbell, D. K., Congenitally Missing Upper Lateral Incisor Teeth. *D. Cosmos* 76:459 (April) 1934.

12. Campbell, D. K., Malocclusion and Associated Dental Deformities. *Am. J. Orthodont. & Oral Surg.* 24:337 (April) 1938.

13. Parounagian, M. B., The Diagnosis of Congenital Syphilis and Its Role in Etiology of Degenerative Disease. *Med. & Surg. Year Book,* Physicians Hospital of Plattsburgh 1:21, 1929.

Fig. 4 (case 2).—Another brother had spaced central incisors and a high palatal arch. Both lateral incisors were congenitally missing

. . . is a strong stigma of congenital syphilis."

In this case of harelip and cleft palate, the mother's Hutchinsonian teeth and their early exfoliation and the father's Carabelli cusp give evidence of the conjoint syphilitic background.

Case 2.—A boy had a left sided harelip. The teeth were well formed, but there was a wide supernumerary tooth between the left upper lateral and central incisors (Fig. 3, left). He was mentally backward.

This case illustrates the family relationship of dental and oral deformities. The father had typical Hutchinsonian upper incisors. The boy's younger brother had crowded teeth with an open bite (Fig. 3, right) and a speech defect. An older brother had no upper lateral incisors (Fig. 4), a high narrow palatal arch and a slight speech defect. He also had poor hearing and a cardiac defect. The mother had heavy well formed teeth, as did her brother.

Case 3.—A boy had a left sided harelip and a cleft palate. His mother had marked Hutchinson's teeth and an open bite. She was also deaf. Later the patient became the father of an apparently normal child. His brother, who had merely crowded but well formed normal teeth, later became the father of a child with a saddle nose.

Case 4.—A girl, aged 10 years, had a left sided harelip. The left lateral incisor was missing (Fig. 5).

There were no Hutchinsonian teeth in the parents to give a hint as to the cause of the defects. Both parents had well formed normal teeth. However, there were nondental conjoint gross defects, the mother having a saddle nose and the father an apparent keratitis. The father's niece also had a harelip.

Another person whom I had an opportunity to see, although the boy was not a patient of mine, had a harelip and a cleft palate. He had had repeated unsuccessful operations for the palatal defect. His father had syphilis. In a case such as this it would seem that management of the patient should be on the basis of a positive congenital syphilis even though the Wassermann reaction is negative.

Figure 6, an illustration which was given to me many years ago by the late Dr. Rodriques Ottolengui, shows a cleft palate with the related dental deformities of Mozer's central incisors turned on their axes, which are as pathognomonic of hereditary syphilis as Hutchinson's teeth, together with a congenitally missing right lateral incisor (Fournier's sign) and a peg-shaped "grain of rice" left lateral incisor and no third molars.

Comment

Whatever ultimately may come to be considered as true causative factors in harelip and cleft palate, there is no doubt

Fig. 5 (case 4).—Congenitally missing left lateral incisor, with right central incisor turned on its axis and retained deciduous left lateral incisor and cuspid

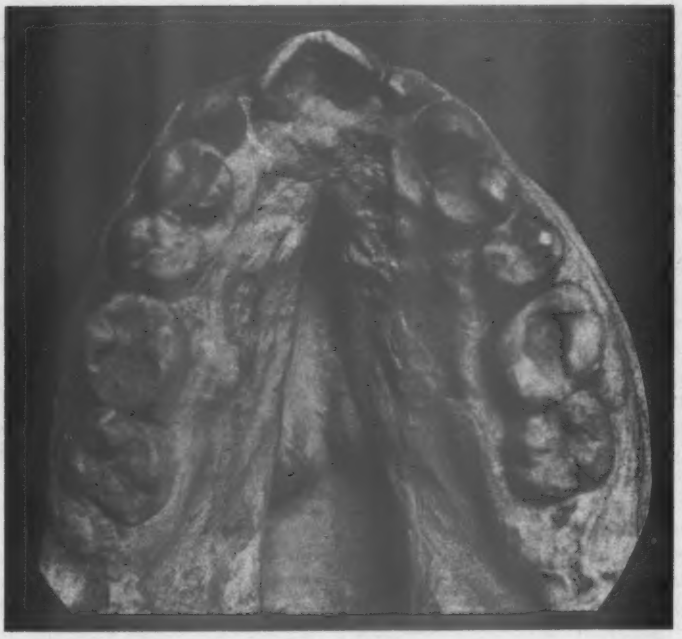

Fig. 6.—Cleft palate with central incisors turned on their axes, congenitally missing right lateral incisor and third molars and peg-shaped left lateral incisor

that many such deformities occur in congenitally syphilitic persons or in members of families marked with syphilitic stigmas. All the abnormalities described occurred in persons whose parents and sometimes other relatives showed signs of syphilitic heredity and in whom it is probable that syphilitic toxins had an opportunity to play a deforming role. It seems reasonable to assume that syphilitic toxins acting early in pregnancy were responsible for the deformities seen in the cases presented.—*415 Washington Avenue.*

Gap Between Research and Application.—American education has never solved the problem of preparing men for research on the new developments required by industry. The traditional training received by an engineer has been in familiarizing himself with the accepted methods of performing important industrial processes. He is rarely introduced to the search for new methods of doing the old tasks, much less for methods of doing tasks such as have not been done before. The research scientist, on the other hand, has traditionally been led to consider fundamental science only as worthy of his attention, and the practical arts as of concern only to those in a lower stratum of intellectual society. He has been taught how to find all kinds of new facts and methods, but has not learned the value of concerning himself with the things of practical use.—*Arthur H. Compton, "The Atomic Crusade and Its Social Implications." Ann. Am. Acad. Political & Social Sc. 249:17-18 (January) 1947.*

PARTIAL DENTURES:

PLANNING AND DESIGNING

Arthur H. Schmidt, D.D.S., Lincoln, Neb.

THE field of partial denture construction has presented numerous and complicated problems which have challenged the ingenuity of some of the best dentists in the profession. Many outstanding men have devoted their best talents to the study and solution of these problems and have contributed substantially to the progress that has been made in this field. Their efforts have brought about such a tremendous improvement in partial denture construction in the last twenty odd years that its crude beginning cannot be compared with present day results.

New discoveries, abbreviated procedures and simplified technics may come, and fads and materials that gave great promise may go, but the intricacies involved in the construction of removable partial dentures seem to be present always.

Oral Health in Dental Prosthesis

Since Nesbitt[1] first applied the casting process to this field in 1916, great improvements have been made in designs and materials. With these technical advances, we have acquired a better understanding of the physiologic principles involved in maintaining teeth, in keeping their investing tissues in healthy condition under partial dentures and in dealing with pathologic conditions that arise in consequence of failure to do so. Indeed, we may be proud of the progress that has been made in the past generation.

Many writers regard this field as the most difficult specialty of dentistry. At any rate removable partial denture procedures unquestionably constitute the most neglected as well as the most abused branch of dental practice. Perhaps the slow development of partial denture science may be traced to the complexity of the subject, but this is no excuse for the fact that many removable partial dentures are detrimental to the tissues.

On the whole, this progress has been empiric rather than scientific. In its very nature, partial denture construction does not lend itself readily to scientific methods of study. There are many reasons for this, such as the infinite variety of patients, their different states of health, the multitudinous methods of treatment and construction available and the great length of time needed. Usually many years of periodic observation (both clinical and roentgenographic) are necessary before scientific conclusions can be drawn.

Lastly, there remains the difficulty, if not impossibility, of obtaining an adequate number of control cases, necessary to check the results of one method of treatment against those of others, or of no treatment at all. All these factors combined seem to preclude the likelihood of obtaining data based on really scientific methods of study, comparable with those commonly employed in other fields of dentistry. Although some scientific work has been done on partial dentures, this has been the exception rather than

Read at the eighty-second midwinter meeting of the Chicago Dental Society, Chicago, February, 1946.

1. Nesbitt, N. B., The Cast Clasp in Removable Bridge Work. *D. Items Interest.* 38:581 (August) 1916.

the rule. However, since success in this field can be measured by ability to make restorations function over periods of ten or more years without damage to the remaining teeth and their investing tissues, it must be clear that this work is based actually upon practical methods and not upon those classified as scientific.

Obstacles to Scientific Planning

This explains why dentists have improved their work largely through the trial and error method as the result of clinical experience gained in daily practice. Partial denture procedures often have been contemplated with uncertainty and attempted haphazardly by many in the profession because no definite procedure can be applied to each and every case. In full denture procedures, each case is usually quite similar to all other full denture cases. It is true that different edentulous mouths present a wide variation in types of saliva, firmness of tissue support, size of arches and maxillomandibular relationship; but all require full dentures and the essentials of mechanics, balance, arch form, and so forth. Contrast this with that of partial procedures, wherein we find (according to Cummer[2]) 65,000 different combinations or possibilities in each jaw. It is impossible to standardize procedures in a manner to fit all these modifications; but there are fundamentals of design, and fortunately these fundamental principles do have universal application, even though the partial denture problems are so varied.

This accounts for the many conflicting opinions on the construction of partial dentures expressed in dental literature. As a rule, these authors, in all sincerity, regarded their opinions as sufficiently correct to warrant the conclusions presented. They little realized that their views were valid only in proportion to the number of cases in which other dentists could apply them successfully, and that, until verified by others, their statements should be looked upon as merely the personal expressions of one individual.

Experience has taught me that the truth usually lies somewhere between the two extremes, and that no conclusion should be considered final until it has stood the test of time.

Nevertheless, planning is still too often lacking. Thoughtless clasp and base designs frequently betray a lack of understanding of the fundamental mechanical factors.

Expressions on this subject reflect the experiences of men and their successes or failures in following certain suggested ideas. Diversities of opinion more likely are created through the different methods of approach to the subject.

It is my desire to offer suggestions of a purely mechanical nature for those dentists who plan their own cases and prescribe those plans in detail to their laboratory.

The laboratory technician's responsibility begins and ends with a denture fitting a master cast made from an impression taken by a dentist and articulated according to an occlusal registration furnished by the dentist.

Yet, this limited responsibility does not mean that the laboratory technician should be unconcerned in the interests of his clients or in dental health service to the public. On the contrary, he should spare no effort to acquire knowledge of the physiologic factors involved in restorative dentistry, and he should strive for a complete understanding of the different principles of case design.

I shall confine my suggestions to dentures to which clasps are rigidly joined, and to clasps in general use, which comprise from 80 per cent to 90 per cent of the metal partial denture service.

To do justice to his patients, a dentist should possess the knowledge necessary to design completely and to construct a

2. Cummer, W. E., Partial Denture Service, cited by Anthony, L. P., *American Textbook of Prosthodontic Dentistry*. Philadelphia: Lea & Febiger, 1942, p. 670.

removable partial denture without assistance from any other source.

The functions of a partial denture are: the restoration and preservation of occlusion altered either by loss of teeth or by malposition of teeth; the preservation of the remaining teeth and alveolar ridges, and the restoration of a normal or desirable facial expression which has been distorted by loss of anterior teeth or closing of the bite.

A partial denture must be planned and constructed to fulfill these essential purposes with a minimum of interference to the tongue and enunciation and the least possible display of structural materials.

Comprehensive planning of partial dentures should include a consideration of occlusion and occlusal registration as well as of various kinds of artificial teeth and the manner in which they perform their functions. Such problems as restoration of vertical opening and condylar relationship, connections between saddle support and occlusal working surfaces and esthetic results should be dealt with.

All of this is a field in itself, a fact that is proved by the otherwise well designed dentures that fail because of poor occlusion, and the dentures having poor clasp and saddle design or construction, which serve surprisingly well because the occlusion happens to be excellent. The fact that occlusion will receive little attention in this presentation does not mean that its importance is underestimated, but that separate and lengthy treatment would be required to do it justice. This discussion will be confined to base design only, considering occlusion in so far as it raises problems of vertical support and bracing support because of the various directions in which masticatory stresses strike the teeth.

Denture Retention

Dentures may be displaced and artificial teeth may lose their functional position through forces acting in various directions. These are as follows:

(1) Vertical masticatory stress, upward in upper cases, downward in lowers, may force the denture into the compressible mucosa, causing loss of the underlying alveolar process through resorption.

(2) A denture may be dislodged vertically from its seat by the force of gravity in upper cases, and in both upper and lower cases by the adhesion of sticky foods and by movements of the cheeks, lips and tongue or their attaching muscles.

(3) An upper or lower denture may be shifted horizontally out of its seat by the lateral excursions of the mandible.

(4) Dentures may be shifted out of their seats in a horizontal direction by the impact of the cuspal planes of posterior teeth, forward in the uppers and backward in the lowers.

(5) An upper denture may be forced outward by the incising bite through the inclined plane pressure of lower anteriors against the lingual surfaces of upper anteriors.

(6) A lower denture may be forced in a posterior direction by the pressure of the lingual surface of upper anteriors against the incisal edges of lower anterior teeth.

The force of these thrusts and pressures may be lessened if the occlusion is well balanced, but cannot be wholly eliminated. Scientific designing of dentures involves consideration of the direction of these movements or thrusts and the planning of all the parts of the denture so that it will be stabilized and the artificial teeth maintained in their correct functional position.

The various parts of the base must be designed to provide an adequate mechanical counterbalance or resistance to these differently directed forces or movements without interfering with any of the functions of a partial denture.

Saddles are supporting devices, one of their functions being to resist vertical

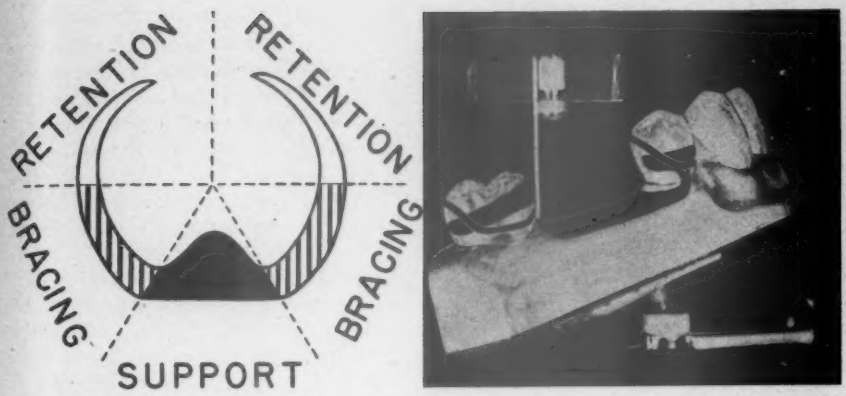

Fig. 1.—Left: The No. 1 clasp provides support because of its occlusal rest at the rigid portion of the clasp above the surveyed or guide line. Retention is provided by the flexible clasp arms in the undercut area. Bracing is supplied by the rigid body portion of the clasp on the part of the tooth that is not undercut. Right: With a posterior tilt, the No. 1 bracing clasp is on the stronger molar tooth. The No. 2 clasp is on the bicuspid, and a definite path of insertion for the case has been established

masticatory pressure against the alveolar ridges. Their flanges, resting against the lingual, buccal or labial sides of alveolar ridges, should provide bracing support against horizontal displacements laterally, anteriorly or posteriorly.

The rugae area, except towards the crest of the anterior ridge, is frequently a useful bracing surface for forward thrusts because of its firmness and relative immunity to change. A lingual plate resting against this surface may function in the same manner as the lingual or buccal flanges of saddles on well defined ridges to prevent lateral displacements. Tooth rests also may function as supporting elements, serving to resist the vertical movement of saddles into the mucosa.

Clasps are direct retainers whose function is to prevent the vertical dislodgment of the denture from its seat (Fig. 1, left). Clasps may also serve as bracing supports to prevent the horizontal shifting of the denture or drifting or rotation of the teeth engaged by them. These we shall term as the anchor teeth, or abutment teeth, because that exactly describes the function they perform.

Direct retention is provided only by clasps for the ends of saddles to which they are attached (Fig. 1, right). When no anchor teeth are available at the opposite ends, some means must be found to hold the saddles in their seats against the ridges. This can be accomplished by extensions of the base to rest against the surfaces of teeth on the opposite side of an axial line between the clasps. Such parts of a denture are known as indirect retainers.

Connectors, such as palatal bars, lower lingual bars or plates and labial bars, serve the purpose of joining posterior saddles with each other, or in unilateral cases to connect the posterior saddle with an anchorage on the side of the arch opposite the saddle. Among these connectors must be included all the smaller bars or struts which are employed to join near-by saddles, or to support or reinforce clasps or indirect retainers.

Each of the component parts is distinguishable by the function it performs in keeping a partial denture in its proper position. It is impossible to draw a hard and fast line between them since some parts perform several functions. A good

example of this is the "continuous lingual clasp" which serves as an indirect retainer, as a brace against lateral movement, and, if it carries one or more anterior teeth, as a tooth rest, or a support. It is noted that clasps may function as bracing supports against the horizontal shifting of a denture and as direct retainers preventing its vertical dislodgment.

Stabilization

Stabilization is not merely a matter of vertical support and vertical retention. It is a problem of anchoring a denture to prevent displacement from its correct position by forces arising in the performance of its function and which act upon it both horizontally and vertically.

Tooth rests, sometimes called "stops" or "rest lugs," are intended to resist the movement of a denture by vertical masticatory pressure. In addition to vertical support of the denture in its functional position, they serve the following purposes: act as important aids to the retentive capacity of clasps by helping to keep the clasp terminals in their proper positions; prevent impingement of the cervical edges of clasps against the gingival margins of anchor teeth, in the event of the shifting or settlement of the denture; and help to prevent the impingement of the extremities of saddles against tissues adjacent to the gingival margins of the anchor teeth in the event of shifting or settlement of the denture. Generally speaking, every tooth adjacent to an edentulous area should carry a tooth rest, whether it is clasped or not.

Dentures must be provided with retention since they tend to become dislodged in a vertical direction by a number of oral forces (Fig. 2, left). In the case of upper dentures, the force of gravity comes into play, regardless of the weight of the appliances. With upper and lower dentures, movements of the cheeks, lips and tongue tend to dislodge the appliance. Also, patients wearing "loose" dentures have a habit of moving them

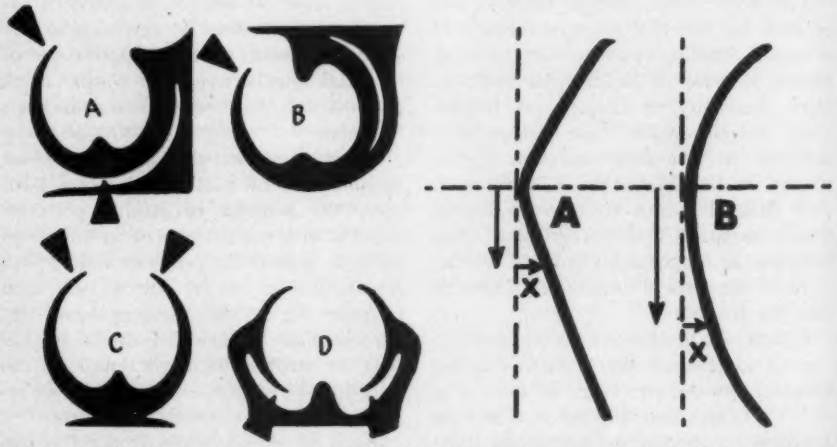

Fig. 2.—Left: A, back action .010 gage; B, ring clasp .020 or .030 gage; C, No. 1 clasp .020 gage; D, No. 2 clasp .020 gage. All clasps should embrace the abutment teeth so as to prevent drift and provide proper bracing, support and retention. The arrows indicate the points of retention where the undercut gages should contact the teeth for best results. Right: The short horizontal arrows (X) represent the amount of horizontal movement that a clasp end would make to obtain the same amount of undercut retention on two different teeth shaped as shown in A and B

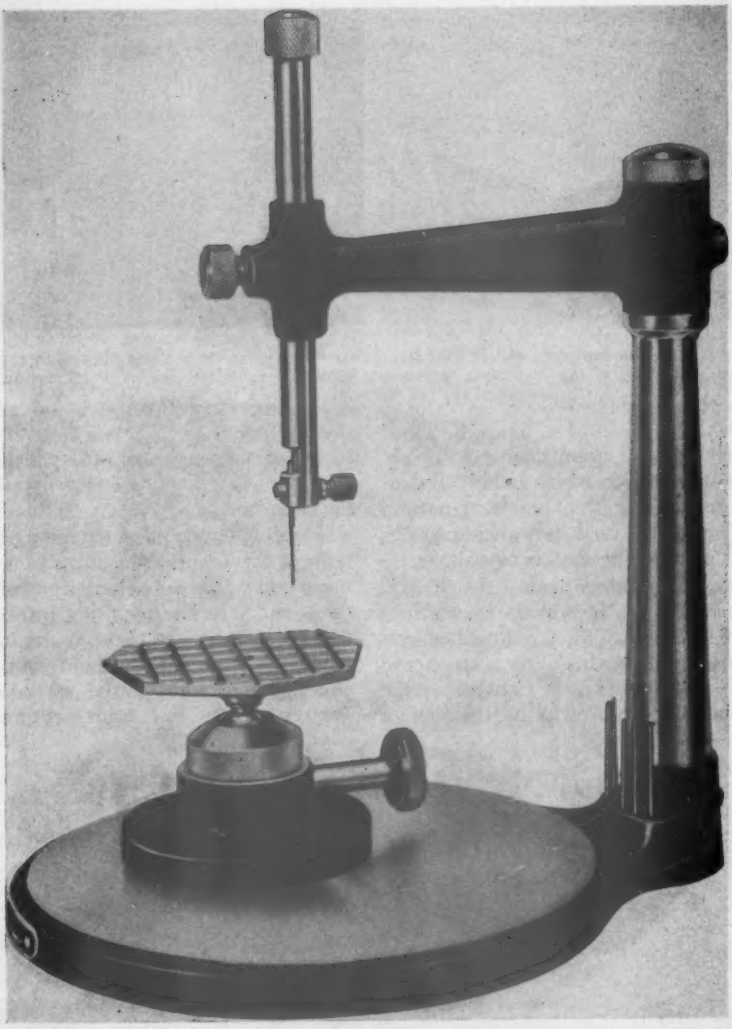

Fig. 3.—The primary value of the surveyor is in studying and analyzing partial dentures. By tilting the model and making use of a specific group of clasps of known value and function, it is possible to determine the best positions for the clasps

with their tongue. Finally, we must not overlook the possibility of dislodgment caused by the wedging of a large bolus of food between the denture and the lips or cheeks, or the pulling action of sticky foods. Besides the discomfort loose partial dentures cause to patients, they set up a wedging pressure against the natural teeth and impingement against gingival margins as they are constantly being pulled out of position and replaced. In partial cases, the presence of the remain-

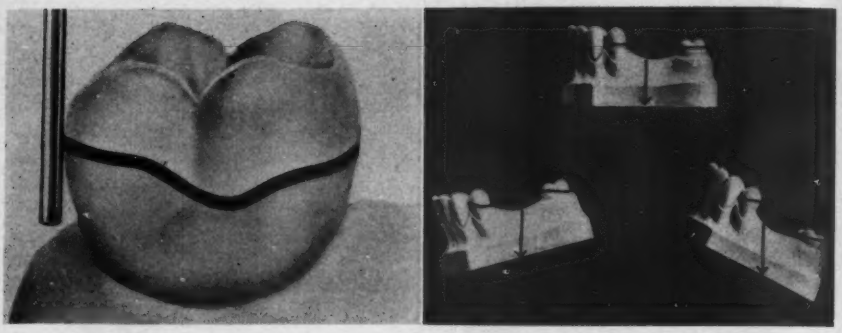

Fig. 4.—Left: The analyzing rod or mandrel, contacting the tooth at the surveyed line, affords a visual indication of the amount of horizontal undercut available. Right: With various tilts, guide lines change their position on the teeth

ing teeth makes it impossible to obtain the tissue adhesion which holds full dentures in their seat. Therefore, natural teeth must be used for anchorage by means of retaining devices. As direct retainers, clasps assure against the vertical displacement of those parts of dentures to which they are directly attached and depend for their effectiveness upon two principal factors (Fig. 2, right): (1) the contours of the crowns of the anchor teeth, or the angles toward which they lean and (2) the physical properties of the clasp metal.

To provide adequate retention, one or both of the terminals or arms of a clasp must possess enough elasticity to spread open and pass the opposing projections representing the contours of the anchor teeth, and then to close about the undercuts. The extent of the spreading is greatest at the free arms or terminals

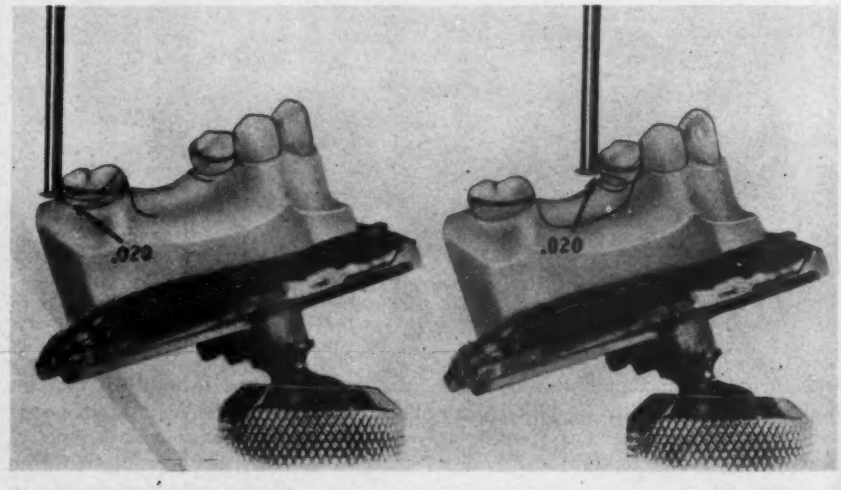

Fig. 5.—The No. 1 clasp (left) and the No. 2 clasp (right) are designed by using the .020 undercut gage

and gradually diminishes to nothing where the clasp is joined to the base of the denture. In order to locate these undercuts and to determine the most favorable areas for retention, the master cast should be surveyed (Fig. 3). Clasp guide lines should be charted with one of the excellent clasp surveying instruments now available (Fig. 4, left). The guide line defines the limits of projection on the contour of the proposed anchor teeth and indicates the position of retention undercuts.

The mechanics of clasp designing are simple, but some confusion seems to exist concerning the reasons for variation in the position and formation of clasps to meet different conditions. This confusion often begins with the first step, the tilting of the model for a clasp survey.

The position of the guide lines and therefore of the clasps can be changed by varying the angle at which the cast is tilted (Fig. 4, right). The angle of the cast determines the path of insertion of the denture to facilitate its placement and removal from the mouth, in one direction only, a direction parallel to the vertical mandrel of the surveyor (Fig. 5). The first problem in the designing of clasps is to tilt the cast at the best angle for the survey.

Conclusion

The construction of clasps in partial prosthesis is a responsibility of the dental profession. The dentist cannot dodge the issue simply because it is sometimes perplexing. He cannot delegate this work to any other group and he cannot deny that there is a definite need for this type of service. Also, in many instances, no other means of occlusal restoration would be as effective as the clasp partial denture. Accordingly, it becomes the duty of each dentist to inform himself so well that discrimination between the destructive and the efficient type of appliance is possible. Then he will be able either to render the ideal type of partial denture service or to give the information to be followed by the technician.—*College of Dentistry, University of Nebraska.*

Definition of a Profession.—A profession may be defined most simply as a trade which is organized, incompletely, no doubt, but genuinely, for the performance of function. It is not simply a collection of individuals who get a living for themselves by the same kind of work. Nor is it merely a group which is organized exclusively for the economic protection of its members, though that is normally among its purposes. It is a body of men who carry on their work in accordance with rules designed to enforce certain standards both for the better protection of its members and for the better service of the public. The standards which it maintains may be high or low: all professions have some rules which protect the interests of the community and others which are an imposition on it. Its essence is that it assumes certain responsibilities for the competence of its members or the quality of its wares, and that it deliberately prohibits certain kinds of conduct on the ground that, though they may be profitable to the individual, they are calculated to bring into disrepute the organization to which he belongs. While some of its rules are trade union regulations designed primarily to prevent the economic standards of the profession being lowered by unscrupulous competition, others have as their main object to secure that no member of the profession shall have any but a purely professional interest in his work, by excluding the incentive of speculative profit.—*R. H. Tawney, The Acquisitive Society. New York: Harcourt, Brace & Company, 1920 (1946 printing).*

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EDITORIALS

HOUSE OF DELEGATES CONSIDERS RAISE IN MEMBERSHIP DUES

THE report of the Budget and Finance Committee was the cause for many hours of deliberation by the Board of Trustees and the House of Delegates at the Boston meeting of the American Dental Association. As reported on page 573 of this issue of THE JOURNAL, the estimated operating expense of the American Dental Association for the current year is $1,076,578 and the anticipated income is $764,000, leaving a deficit of approximately $312,000. In other words, in the next year the Association would spend 40 per cent more than its income, which would necessitate a drain on its reserve funds to carry on essential activities.

Both the Board of Trustees and the House of Delegates did their utmost to secure a balanced budget.

The Board spent at least sixty hours examining budgetary items, weighing the worth of each against its cost and conferring with committee members before submitting a proposed budget and the following three recommendations to the House of Delegates: (1) that the House adopt the budget as presented and authorize supplying the deficit from the reserves (at the present rate the reserve will be exhausted in two years); (2) that a reduction in expenditures be made in the amount necessary to balance the budget (such action would curtail the activities of every agency thus affected), or (3) that the House authorize an increase in dues.

The House of Delegates voted to approve the proposed budget but instructed the Board of Trustees to curtail budgetary expenditures except in those instances in which curtailment would seriously hamper the activities of the Association. In order to comply with the request of the House, the Board met in Chicago on October 11, 12 and 13. A report of its deliberations will be published in an early issue of THE JOURNAL.

After several days of deliberation, with due consideration of rising costs and expanding activities of the Association, the House of Delegates voted to increase the

annual membership dues from $6 to $12. If this vote is sustained by the House at its next annual session, the increase in dues will become effective January 1, 1949.

In view of present inflationary trends most members will understand the need for an increase in dues. There will be some, however, who will not be in favor of the action. If the objectors were aware of the dues paid by members of other national organizations, particularly in the crafts, they might change their point of view.

A professional organization such as the American Dental Association, by its very nature, has a much larger job to do than similar organizations in the crafts and trades. This larger job arises out of the fact that the prime duty of a professional organization is to advance the welfare of the public and, secondarily, to advance the welfare of individual members so that they may serve the public more effectively.

The Association is faced with the same postwar economic problem that confronts all organizations and all individuals. Since 1939 the cost of living has increased 57 per cent. This rise is reflected in the operating cost of the Association. In addition, the prices of certain commodities and services, basic to the activities of the Association, have increased more than 100 per cent. However, inflation is not entirely responsible for the increase in the cost of operation of the Association. The Association has expanded its services to members. These additional services are beneficial, yet they add to the expenditures.

In order to obtain a balanced budget, the House of Delegates is faced with two alternatives. It can increase the membership dues sufficiently to enable the Association to finance its expanding activities, or it can limit the services rendered. It would be unwise to curtail the services as the Association is confronted with many issues important to the profession. Therefore, the final solution to the financial problem of the Association lies in a judicious increase in dues.

NEW DENTAL DIRECTORY COMPILED BY AMERICAN DENTAL ASSOCIATION

THE new Dental Directory announced in this issue of THE JOURNAL was developed by the American Dental Association for the benefit of its members and others interested in the dental profession. This publication lists alphabetically and geographically the names and addresses of approximately 78,000 dentists. Code symbols follow each name to indicate whether the dentist is a member of organized dentistry, the school from which he was graduated, his year of graduation and the type of specialty, if any, which he practices.

The directory contains valuable reference material such as a brief history of the Association, its code of ethics and a map of its trustee districts, the requirements of state dental examining boards, a list of dental schools, a reciprocity table, a roster of the secretaries of state and component dental societies and a list of dental manufacturers.

The last dental directory was published twenty years ago by a commercial organization and was discontinued during the depression. That directory, although obsolete, served for many years as the only inexpensive and easily accessible source of information regarding dentists and their locations. Its value has long since ceased because

of obsolescence. Therefore the timely publication by the Association of this new official directory is welcomed alike by practicing dentists, dental society officers, dental schools, libraries, dental dealers, manufacturers and laboratories. Dentists will find the directory particularly helpful when referring patients to dentists in other communities.

A staff of trained specialists has worked for almost five years compiling the data for the directory, which is as complete and authentic as possible. Undoubtedly there are errors in this first edition of the directory. Some of these errors are the result of inaccurate and inadequate source material. Others are traceable to clerical mistakes which can always be expected in the original cataloging of 78,000 names, addresses and other data. Users of the directory who note errors are invited to report them to the Association so that the directory can be improved.

The difficulty experienced by the directory staff in obtaining accurate statistics emphasizes the advisability of having an annual registration of dentists. The staff was able to obtain accurate data only from those states which require annual registration. The Procurement and Assignment Committee experienced this same difficulty during the early months of the war, and it became necessary for the committee to set up an elaborate system of check and countercheck in order to obtain the accurate information on dental personnel required by the government. The records compiled by the Procurement and Assignment Committee formed an important part of the basic material for the new directory.

Now that the material has been compiled it will be comparatively simple to keep it up to date. Present plans provide for the publication of a revised edition every two years. This currently accurate information will prove valuable not only to those in the profession but also to the government in the event of another national emergency.

EXCERPTS FROM THE MINUTES OF THE HOUSE OF DELEGATES, EIGHTY-EIGHTH ANNUAL SESSION

FOLLOWING are excerpts from the minutes of the eighty-eighth session of the House of Delegates, held in Boston, August 4-8, 1947. Some of the actions of the House, not reported here, were published in abridged form in the September 1 issue of THE JOURNAL, pages 360-365.

Report of Board of Trustees

H. B. Washburn, president-elect, presented the report containing advisory comments and recommendations designed to aid and hasten the deliberations of the House of Delegates. The report is as follows:

In an effort to aid and hasten the deliberations of the House of Delegates, the Board of Trustees has examined the reports of the various committees, as well as various resolutions, and transmits its comments and recommendations on these matters to the House of Delegates. In making these comments and recommendations, the intention has been to make these advisory to the House of Delegates which must establish the policies for this Association.

Budget.—The annual budget of the Association was transmitted to the House of Delegates for study on Monday. It will be noted that there is an anticipated deficit of $312,578.46. The bylaws require that if this budget is not adopted by the House of Delegates, it must be returned to the Board of Trustees for further consideration, with specific directions.

The Board of Trustees has devoted a major portion of its time to a most careful and detailed consideration of every item in the budget. In the absence of any well defined policy, which can be set up only by the House of Delegates, the Board has made decisions on the basis of information supplied by each agency represented in the budget askings.

To illustrate some of the difficulties: in practically every instance where the Board, after careful analysis of information by a committee, cut the asking of an agency, that agency has proceeded to take steps to have the reduction reinstated.

The House of Delegates must come to a realization of its responsibilities in relation to the budget. A policy must be set up so that the Board of Trustees can intelligently prepare a budget.

The House frequently loses sight of the fact that every time a recommendation creating a new committee or expanding any existing activity is adopted, the budget is automatically increased. The Board of Trustees cannot change any action of the House of Delegates nor has it any intention or wish to do so.

At this session, the House is faced with the need of making a decision in regard to the budget and as a basis the Board suggests the following alternatives:

1. The House can adopt the budget as presented and authorize supplying the amount of the deficit from the reserves, but at the present rate the reserve will be exhausted in two years.

2. A cut can be made in an amount sufficient to balance the budget. Such action would curtail the activities of every agency so affected.

3. The House can authorize an increase in dues.

Constitution and Bylaws.—The following comment is submitted in connection with various changes proposed in the bylaws:

Increase in Dues for Relief Purposes: The Board of Trustees does not approve the recommendation to increase dues $1 per year for relief purposes. The Relief Commission has also withdrawn its recommendation of an increase in dues for this purpose.

Junior Members: The Committee on Membership requested amendment of the bylaws to change the term "junior members" to "student members." The Board of Trustees be-

lieves that a change is desirable but suggests that consideration be given to the term "undergraduate members."

Revision of the Constitution and Bylaws: The Board of Trustees concurs in the recommendation of the standing Committee on Constitution and Bylaws that consideration of the proposed revision be deferred until the 1948 annual meeting of the Association. This deferment will enable all concerned to study the new instrument more fully and to suggest changes for its improvement. The Board also recommends that special provision be made in the agenda of the 1948 meeting to permit careful consideration of the new instrument.

Economics.—The Board of Trustees submits the following comments on the recommendations of the Committee on Economics:

Economic Status of Dentists: The Board of Trustees approves of this study under the conditions stated.

Dental Therapeutics.—The Board of Trustees concurs in all of the recommendations of the Council on Dental Therapeutics except that dealing with the informational survey and a projected research program in a nonaccredited dental school. The sum saved is $2,500. The Board of Trustees does not agree that such an informational survey should be made at this time.

Prosthetic Dental Service.—In connection with the original and supplemental reports of the Committee on Prosthetic Dental Service, the Board of Trustees makes the following comments:

Liaison Committee: The Board of Trustees recommends that every constituent society maintain a prosthetic dental service committee for purposes of liaison with interested groups.

Relations with National Laboratory Organization: Because it removes authority from the laboratory industries to organize as they choose, the Board of Trustees does not concur in the recommendation that the American Dental Association establish official relations only with "a truly democratic national laboratory organization which has a structure similar to that of the American Dental Association and whose governing power arises from the state level."

Recognition of Technicians and Laboratories: The Board of Trustees concurs in the recommendation that the dental laboratory technician and the dental laboratory be "recognized as essential adjuncts of the dental profession but, in no sense, as independent agencies capable of rendering a health service to the public."

Training of Laboratory Technicians: The Board of Trustees recommends that a study of vocational education programs for dental technicians be made but reports to the House of Delegates that the Council on Dental Education already has such a study under way.

Education of Laboratory Technicians: The Board of Trustees recommends the adoption of the recommendation on the education of dental laboratory technicians with the reservation that it apply to those schools that do not meet standards set by the Council on Dental Education.

Furtherance of Education for Dental Laboratory Technicians: The Board of Trustees does not concur in the recommendation "that the Association use all of its resources to hasten the development of approved educational opportunities for dental laboratory technicians under the auspices of the dental schools."

On-the-Job-Training: The Board of Trustees approved the recommendation regarding "on the job training" since this has been the source of dental laboratory technicians for years.

Accreditation of Dental Laboratories: The Board of Trustees does not recommend the adoption of the recommendation regarding accreditation because it compels the American Dental Association to set up standards and accredit a trade organization. Since accreditation is the present program of the Association, the Board recommends that the House of Delegates take such action as is necessary to change this policy.

Drafting Model Dental Practice Act: The Board of Trustees does not concur in the recommendation that the Committee on Legislation be requested to draft a model dental practice act with appropriate articles governing the regulation of dental laboratories for such constituent dental societies as may wish to use it.

Study of Laboratory Questionnaires: The Board of Trustees does not concur in the recommendation that "facilities be provided to make a detailed summary and study of the dental laboratory questionnaires now on file in the Washington Office."

Full-Time Secretary: The Board of Trustees does not concur in the recommendation that "a dentist be employed full time in the Central Office as secretary to the Committee on Prosthetic Dental Service."

Standing Committee on Prosthetic Dental Service: A standing Committee on Prosthetic Dental Service has already been authorized by the House of Delegates. This action came too late at the last annual meeting to permit appointment of members of this committee by the House of Delegates. Accordingly, it was reappointed as a special committee so that its activity could continue. The Board will submit nominations for this standing committee in a later report.

Conference with Dental Laboratory Industry: The Board of Trustees does not concur in the recommendation that "proper budgetary allocation be made for a conference with the dental laboratory industry."

Miscellaneous Business.—The Board of Trustees makes the following comments on matters of miscellaneous business:

Relief Commission: The Board of Trustees agrees with the recommendation that the funds of the Relief Commission should be specifically dedicated to relief purposes and unattachable by any legal action.

Limitation of Principal: The Board of Trustees has no recommendation regarding the limitation of the Relief Fund at this time.

Study for Retirement Security: The Board of Trustees does not concur in the proposal to make a study of retirement security for several reasons, one of which is that it involves an expenditure of more than $15,000.

Office of Relief Commission: The Board of Trustees has approved the transfer of the office activities of the Relief Commission into the Central Office. This action was taken in order to reduce costs of administering the grants to needy dentists. These costs are taken from the Relief Fund and represent contributions to the Fund. The Board of Trustees emphasizes that this transfer of office activities in no way affects the present policies of the Relief Commission which will continue to be under the direct supervision of the chairman and secretary of the Relief Commission.

Increase in Grants: The Board of Trustees wholeheartedly concurs in the recommendation that grants from the American Dental Association be increased to twice as much as the amount of the state society grant provided by the rules and regulations of the Relief Commission.

Membership.—The Board of Trustees does not concur in the recommendation that an annual membership campaign be inaugurated in October of each year, since it believes that membership activities should be continuous throughout the year.

Study of Handling Membership: The Board of Trustees agrees that a study of methods of handling membership in the central office be made in order to determine if methods less demanding on officers of state and component societies can be instituted.

Pan-American Membership: The Board of Trustees agrees that the constitution should be amended to increase the dues for Pan-American membership to $10 a year.

Supplemental Report

The following matters were referred to the House of Delegates in a report from the Board of Trustees.

Election to Life Membership.—The secretary stated that there was no meeting of the House of Delegates in 1945 and that no nominees for life membership were submitted in that year. Through an inadvertence the nominees for 1946 were not presented to the House of Delegates for election. As a result, the Board of Trustees now nominates 975 candidates from 35 states. On proper vote, the members nominated were declared elected to life membership.

Policy on Selection of Meeting Sites.—In order to secure favorable meeting sites, the Board of Trustees recommended that the House of Delegates establish a policy to select meeting sites three years in advance. On proper vote, the recommendation was approved.

Selection of Meeting Sites for 1948, 1949 and 1950.—The Board of Trustees reported that it had made the following tentative selection of meeting sites and asked the approval of the House of Delegates for this selection: 1948, Chicago; 1949, San Francisco; 1950, Atlantic City. The Board of Trustees also recommended that approval of the 1949 convention site be subject to securing dates which are acceptable in the opinion of the Board of Trustees.

On proper vote, Chicago was selected as the convention site for 1948; San Francisco was selected as the convention site for 1949, sub-

ject to securing acceptable dates; Atlantic City was selected as the convention site for 1950, subject to securing acceptable dates.

Resolution on National Blood Program of American Red Cross

The following resolution was presented by the secretary:

Whereas, the American Red Cross is embarking on a National Blood Program which has as its goal to provide, without charge, the products, blood and blood derivatives for medical use throughout the nation, and

Whereas, we recognize the value of a national blood program in helping to save lives and prevent suffering, and

Whereas, we believe that the dentists of the United States are in favor of a program of such importance to the health of the country, therefore, be it

Resolved, that the American Dental Association, through its House of Delegates, approve and endorse the National Blood Program of the American Red Cross.

It was moved by Philip E. Adams, Massachusetts, and seconded by A. C. Tuck, Georgia, that the resolution be adopted. On proper vote, the motion was declared carried.

Budget for Fiscal Year Ending June 30, 1948

The secretary called attention to the mimeographed copies of the budget which had been distributed to all members and read the following portion of Chapter XI, Bylaws: "The budget when presented by the Budget and Finance Committee of the Board of Trustees, and upon being approved by the Board, shall be printed and presented to the House of Delegates for its approval. If the budget so presented is not acceptable to the House of Delegates, it must be referred back to the Board of Trustees for further consideration."

Report of Board of Trustees on Revised Budget.— Permission to deviate from the regular order of business was granted in order to permit presentation of a progress report from the Board of Trustees, which had been requested at the Wednesday afternoon meeting "to bring in a budget for the information of the House of Delegates showing in detail the activities which would be curtailed or eliminated in order to balance the budget."

President-Elect Washburn, speaking for the Board of Trustees, presented the following proposed reductions in budgetary requests, stating that only these items had thus far been considered by the Board of Trustees:

Annual Sessions: The budget for the annual session had been reduced from $76,500 to $71,500. Recovery: $5,000.

Business Manager's Department: The budget for the Business Manager's Department had been reduced from $37,200 to $34,700. Recovery: $2,500.

Division of Dental Health Education: The budget for the Division of Dental Health Education had been reduced from $40,205 to $23,805. Recovery: $16,400.

Bureau of Public Information: The budget of the Bureau of Public Information had been reduced from $28,933 to $17,850. Recovery: $11,103.

Board of Trustees: The budget of the Board of Trustees had been reduced from $11,425 to $7,450 largely by eliminating the February meeting of the Board of Trustees and the costs incident thereto. Recovery: $3,975.

Council on Dental Health: The budget of the Council on Dental Health had been reduced from $31,965 to $23,315. Recovery: $8,650.

The total recoveries made in a revision of the budget thus far amounted to $47,628.

President-Elect Washburn explained that the original budget represented the best efforts of the Board of Trustees as to the funds necessary if the activities of the American Dental Association were to be carried on in accordance with previously expressed wishes of the House of Delegates. He indicated that the current instruction of the House of Delegates to produce a balanced budget left the Board of Trustees with no alternative other than to cut activities ruthlessly even to the point of bringing the activity of some agencies to a complete standstill. Questions from the floor of the House of Delegates were invited.

Discussion centered principally around the anticipated deficit of $155,225 for THE JOURNAL OF THE AMERICAN DENTAL ASSOCIATION. John J. Hollister, business manager, listed an increase in printing costs of $84,000 over 1945-1946, the last full year that THE JOURNAL and the midmonthly supplement were published; an increase in circulation of 25 per cent; an increase in cost of paper of approximately 76 per cent; an increase in the cost of paper stock of $4,500 owing to the semi-

monthly publication of THE JOURNAL; an increase in postage and wrapping of $8,000 over the cost for 1945-1946.

In response to a suggestion that publication be returned to a monthly basis, it was reported that the present contract with the printer was entered into in October 1946 for a period of five years; that the return to a monthly publication schedule would effect a saving of not more than $40,000 per year owing to increased basic costs of paper, printing, postage; that because July, August and September issues were already in preparation it would be impossible to change the publication schedule much before January 1, 1948, with a resultant saving for the fiscal year of $20,000 to $25,000. It was also pointed out that the return to a monthly publication schedule would also reduce advertising income by $12,000 to $15,000.

It was moved by Homer B. Robison, Kansas, and seconded, that THE JOURNAL be returned to a single issue monthly as soon as possible. Strong opposition was registered by members of the House of Delegates and, upon vote, the motion was declared lost.

It was moved by C. Raymond Wells, New York, and seconded by Morris Schoenfeld, New York, that the president appoint a liaison committee of three members of the House of Delegates to meet with the Board of Trustees to bring back a practical budget that would show specifically what activities would have to be curtailed or eliminated if the Association were to operate on a balanced budget. The discussion that followed pointed up the evident impossibility of reducing the budget items materially. On vote, the motion was lost.

It was moved by A. C. Young, Pennsylvania, and seconded, that the House of Delegates discontinue its discussion of further reduction in budget items until the Reference Committee on Constitution and Bylaws had reported the two resolutions pertaining to an increase in dues. The motion was voted upon and declared carried.

Adoption of the Budget.—It was moved by Percy T. Phillips, New York, that the budget as presented by the Board of Trustees be adopted; that the Board of Trustees be instructed that, until such time as additional revenue became available through income in dues, each budget be pared to the minimum for basic functional need. The motion was seconded and carried.

American Dental Association
Budget

Fiscal year July 1, 1947 to June 30, 1948

Income

A.	Membership Dues	$ 400,000.00
B.	Advertising—Journal of the A.D.A.	185,000.00
C.	Subscriptions—Journal of the A.D.A.	30,000.00
D.	Mailing List Service	1,500.00
E.	Interest and Dividends—Journal Fund	5,000.00
F.	Capital Gain—Journal Fund	2,500.00
G.	Interest and Dividends—General Fund	20,000.00
H.	Capital Gain—General Fund	5,000.00
I.	Division, Dental Health Education—net	15,000.00
J.	Library Bureau	500.00
K.	Council on Dental Therapeutics—net	2,000.00
L.	National Board of Dental Examiners	3,500.00
M.	Dental Index	2,500.00
N.	Subscriptions—Journal of Oral Surgery	15,000.00
O.	Advertising—Journal of Oral Surgery	500.00
P.	American Dental Directory—net	14,000.00
Q.	Exhibit Space	62,000.00
	Total Income	$ 764,000.00

Expense

1.	Annual Sessions	$ 76,550.00
2.	American Dental Directory	13,819.46
3.	Business Manager	37,200.00
4.	Building Care and Maintenance	19,960.00
5.	Bureaus	
	(a) Division of Dental Health Education	40,205.00
	(b) Dental Index	10,070.00
	(c) Library Bureau	14,547.00
	(d) Bureau of Public Information	28,953.00
6.	Committees, Commissions, Councils and Board	
	(a) Board of Trustees	11,425.00
	(b) Committee on Constitution and Bylaws	1,695.00
	(c) Council on Dental Education	42,745.00
	(d) Council on Dental Health	31,965.00
	(e) Council on Dental Therapeutics	35,915.00
	(f) Committee on Economics	16,170.00
	(g) Committee on History	300.00
	(h) Hospital Dental Service	2,685.00
	(i) Committee on International Relations	2,531.00
	(j) Judicial Council	1.00
	(k) Committee on Legislation	20,595.00
	(l) Committee on Library and Indexing Service	625.00
	(m) Committee on Membership	7,300.00
	(n) Committee on Military Affairs	1,420.00
	(o) Committee on Motion Pictures	200.00
	(p) National Board of Dental Examiners	5,894.00
	(q) Committee on Dental Museum	4,335.00
	(r) Committee on Nomenclature	125.00
	(s) Committee on Prosthetic Dental Service	1,900.00
	(t) Research Commission	52,054.00
	(u) Committee on Scientific and Health Exhibits	600.00
	(v) Committee on Trade Relations	350.00
	(w) Horace Wells Committee	1,975.00
7.	Editors Conference	1,000.00
8.	General Administrative	39,130.00
9.	Index and Directory of Official Acts	5,381.00
10.	Journal of American Dental Association	370,225.00
11.	Journal of Oral Surgery	18,101.00
12.	Legal Services	119.00
13.	Life Members Expenses for Journal of the A.D.A.	7,350.00
14.	Membership Records	19,810.00
15.	President's Expense	8,000.00
16.	Retirement Annuities	10,960.00
17.	Employees' Retirement Program	15,000.00
18.	General Secretary	48,295.00
19.	Treasurer's Expense	7,460.00
20.	Washington Office	10,638.00
21.	Contingent Fund—3 per cent	31,000.00
	Total, Expense	$1,076,578.46

Recapitulation

Total Expense	$1,076,578.46
Total Anticipated Income	764,000.00
Total Estimated Excess of Expense Over Income	$ 312,578.46

Relief Fund

Income:	
Christmas Seals	$ 45,000.00
Interest and Dividends on Investments	15,000.00
Capital Gains—Investments	5,000.00
	$ 65,000.00
Expense:	
Relief Commission	$ 2,612.00
Christmas Seals	4,925.00
Relief Grants	13,000.00
Seals Receipts—Distributed to States	22,500.00
	$ 43,037.00

Insurance Fund

Committee Expense	$ 1,400.00

Underwriting

American Dental Directory	$ 15,000.00
Division of Dental Health Education	50,000.00
Library Bureau	3,000.00
Council on Dental Therapeutics	12,000.00
Committee on Dental Economics	1,050.00
	$ 81,050.00

Capital

Business Manager	$ 850.00
Division of Dental Health Education	1,500.00
Library Bureau	2,625.00
Council on Dental Education	600.00
Council on Dental Therapeutics	5,000.00
General Administrative—Furniture and Fixtures	10,000.00
General Administrative—Central Office Alterations	46,000.00
Membership Records	10,400.00
	$ 76,975.00

(To be continued in next issue)

INTERNATIONAL CORRESPONDENCE

News from New Zealand

National Dental Service

For the purposes of organized dental service, the New Zealand Department of Health has, for convenience, divided the population into three categories: the preschool and primary school group, the adolescent group up to 19 years of age and the adult population. The first group is already receiving organized dental care, and treatment of the second group was begun early this year. Organized dental care for the third group is not contemplated at this time.

The second phase of the National Dental Service, inaugurated early this year, is designed to provide dental care for children from the time they leave primary school until they reach the age of 19 years. Dental care for this group will be in effect a continuation of the care that is already provided for elementary school children and for children of preschool age. Under the system which has been in operation in New Zealand for some twenty-five years, the preschool and primary school population are cared for by specially trained school dental nurses working under the direction and control of dentists who are full-time officers of the Department of Health. This system has long been an established part of the dental organization of the country, and it has the complete approval of the dental profession and the confidence of the public.

The National Dental Service in all its branches is administered and controlled by the Dental Division of the New Zealand Department of Health. The school dental nurses, for example, are trained in the Department's own training school at Wellington and are subsequently employed by the Department in school dental clinics throughout the country. The normal organization provides for one school dental nurse for every 500 children, but as a result of war conditions there is at present a temporary shortage of staff. In addition to carrying out the treatment necessary to maintain the dental health of the children, the school dental nurse is expected to provide dental health education.

The work of maintaining the dental health of the adolescent group is taken over by dentists, and the program that has been adopted is the result of negotiations and discussions between the Department of Health and the New Zealand Dental Association.

Program for Dental Care of Adolescents

Features of the program are: (1) The ultimate aim is to provide dental service for adolescents by means of full-time salaried dentists, but, until sufficient dentists can be recruited, private practitioners are undertaking the work on a fee-for-service basis. The response has been most encouraging, 73 per cent of the dentists having offered their services. (2) Eligibility for dental treatment as an adolescent is contingent upon a person's having undergone regular dental care, either at a school dental clinic or at the hands of a private practitioner, up to within three months of the time of his applying for enrollment. (3) The adolescent patient will be given treatment at intervals of six months until he has reached his nineteenth birthday or such earlier age as the Minister of Health may from time to time appoint. (For this first year of operation, the maximum age has been fixed as the sixteenth birthday, and this age will be raised from time to time according to the capacity of the profession to absorb additional age groups.) (4) Treatment is to be essentially of a nature designed to conserve the natural teeth. No provision is made in the normal schedule of treatment for extractions, as under this system extractions should be unnecessary, except in special cases, for which specific approval must be obtained. (5) Provision is made for free choice of dentist, and dentists have the right to decline to treat patients. (6) In administering this program, the Department of Health is assisted by advisory committees of private dental practitioners acting in association with departmental officials, both at central government and district levels.

This second phase of the National Dental Service was inaugurated on February 1, 1947, and, within three months, approximately two-thirds of those eligible for dental care up to the age of 16 years had already enrolled. As

with the school dental nurse system, the program has the complete endorsement of the New Zealand Dental Association, and on the inauguration of the program the president of the association sent a personal message to every member, urging the utmost cooperation in making the new service a success. As stated earlier, 73 per cent of the dental practitioners responded at once and are now participating in the service.

The provision of operative treatment is but one approach to the problem. An active dental health education organization already forms an important part of the National Dental Service, and by means of the radio, the press, the screen, public addresses, school lessons, posters and displays, the dental message is constantly being presented to the public in new and striking forms. As soon as full-time dentists become available in sufficient numbers, it is planned to include orthodontic treatment and caries control as essential preventive features in the program.

These dental services are provided entirely at the expense of the New Zealand government and are free of cost to the individual. There is a special social security tax of one shilling and sixpence on the pound to finance the various health and welfare activities that are provided under social security.

Dental services in New Zealand are being developed in accordance with the modern conception of health services as enunciated in recent years, in that: (1) they are a responsibility that has been undertaken by government; (2) they are free of cost to the individual, irrespective of means or other considerations, and (3) their object is to maintain good dental health over a period of years through regular and periodical dental care, associated with an organized program of dental health education and such preventive measures as our present knowledge makes available.—*J. Llewellyn Saunders, Director, Dental Division, Department of Health, New Zealand.*

News from Great Britain

The Nuffield Foundation

The objectives of the Nuffield Foundation are: "(1) the advancement of health and the prevention and relief of sickness . . . in particular . . . by medical research and teaching and by the organization and development of medical and health services . . . ; (2) the advancement of social well-being . . . in particular by scientific research and the organization, development and improvement of technical and commercial education including the training of teachers and provision of scholarships and prizes . . . ; (3) the care and comfort of the aged poor."

In the second report of the Foundation, which has just come to hand, the contributions of the Foundation in the field of dental health are outlined. "As part of its contribution in the formidable task of improving the arrangements for dental health in this country, the Foundation . . . offered grants to four university dental schools to assist them to improve the quality of dental teaching and the facilities for research, particularly on the scientific side." At the Sutherland Dental School in the University of Durham the Foundation has instituted a department of oral medicine under my direction. This department "aims to give the students a good understanding of the causation, diagnosis and treatment of oral disease . . . and lays special emphasis upon the systemic effects of dental disease together with the oral manifestations of general disorders." Research projects include dental uses of chemotherapy, oral lesions of occupational diseases and the causation of dental caries. In the same university I. N. Jenkins, M.Sc.,Ph.D., is Nuffield lecturer in physiology to dental students. "Instruction in this subject includes both general and oral physiology; scientific method and the experimental approach are stressed. Research is in progress into the effects upon dental disease of fluorine, the composition of the saliva, and factors in calcium metabolism."

At Guy's Hospital Dental School, the largest in the British Commonwealth, Professor Martin Rushton is "head of the dental research unit . . . and . . . will be engaged mainly on research into the causes of dental disease and in the teaching of oral pathology to undergraduate students. . . . The University of Leeds has used the Foundation's grant to its school of dentistry for the appointment of a scientist of

wide biochemical experience, H. J. Rogers, B.Sc.,Ph.D., as Nuffield research fellow in oral biology, and for the equipment of a laboratory for his use. This appointment is intended to be the first step in the establishment of a research school in which dental problems will be investigated by workers having special training in the relevant sciences. . . .

"The University of Manchester, Turner Dental School, the scientific research team which, financed by the Foundation's grant, is to conduct a ten-year program of research into the prevention of dental disease in the teeth of school children, has started by assuming responsibility for the dental care of 1,200 children aged 3 to 14 years, in three Manchester schools. Examinations of the children, as they pass through the schools, will be made at least twice yearly. Research workers to undertake the laboratory work are being assembled. What they discover experimentally will be translated into clinical application and its value assessed, by other workers under the direction of G. Heaton, B.D.S.,L.D.S., who has been appointed lecturer in children's dentistry and has just completed—by means of a traveling grant from the Foundation—a tour of university dental schools in the United States for the purpose of studying the work being done there on the causes of dental disease."

A further section of the report deals with dental fellowships and scholarships. "The fellowship side of this scheme is of a two-fold nature, awards being offered on the one hand to graduates and licentiates in dental surgery to enable them to receive training in pure and applied science and on the other hand to graduates in medicine and science to receive training that will qualify them to undertake teaching and fundamental research in dental health and diseases . . . The scholarship side of the scheme, intended to enable outstanding dental students to spend a further period in scientific study, remained in abeyance until the autumn of last year since, owing to the acute shortage of qualified dentists, dental students were not permitted, for the time being, to extend their period of training. Only three scholarships have so far been awarded, but the quality of these candidates encourages the Foundation to hope that from now on these scholarships will prove increasingly attractive to those young dentists of the future who are eager to engage in teaching and research upon the basis of a sound knowledge of the biological sciences."

Royal College of Surgeons

A Faculty of Dental Surgery and a postgraduate diploma have been established by the Royal College of Surgeons of England. The diploma is the Fellowship in Dental Surgery of the Royal College of Surgeons of England (F.D.S.R.C.S.Eng.). The following persons have been elected as the first eighteen fellows in dental surgery: H. F. Humphreys, Birmingham Dental School; Harry Stobie, Royal Dental Hospital, London; A. D. E. Shefford, University College Hospital Dental School, London; W. Kelsey Fry, Guy's Hospital Dental School, London; Vivian Greenish, Royal Dental Hospital, London; Major General Austin, Royal Army Dental Corps; Surgeon Captain J. T. Wood, Royal Navy Dental Service; Edward Samson, president of the British Dental Association; A. C. Deverell, Eastman Dental Clinic, London; Air Commodore G. A. Ballantyne, Royal Air Force Dental Service; F. S. Warner, Guy's Hospital Dental School, London; R. V. Bradlaw, Sutherland Dental School, University of Durham; H. A. Mahony, Chief Dental Officer of the Ministry of Health; F. C. Wilkinson, Dental School, Manchester; E. W. Fish, chairman of the Dental Board of the United Kingdom; T. Talmage Read, Leeds Dental School; W. G. Senior, secretary of the British Dental Association, and H. T. Roper-Hall, Birmingham, member of the Dental Board of the United Kingdom. These eighteen fellows, together with C. L. Endicott, W. L. Boness and A. C. MacLeod, all of London, constitute the first Board of the Faculty of Dental Surgery. Professor Bradlaw was elected chairman.

The following extracts from the regulations for the diploma of Fellow in Dental Surgery may be of interest. "The diploma . . . may be granted to those who possess a dental qualification registrable in the British Dentists Register and to graduates or diplomates of those universities and other licensing bodies recognized by the Council . . ." The examination is in two parts, primary and final. Candidates must be at least 25 years of age when granted the diploma but can enter for examination before that age. The dates for the examination will be so arranged that a candidate may enter for both parts of the examination but can proceed to the final only if he is successful in passing the primary. The examinations will be held in April and October.

The subjects of the primary examination are applied anatomy, including the anatomy and histology of the teeth and jaws, and applied physiology and the principles of pathology, with special reference to the teeth and jaws. The examination is partly written and partly oral. Candidates are admissible at any time after they have obtained a dental qualification.

The subjects of the final examination are surgery, oral pathology and bacteriology, and dental surgery. The examination in surgery is partly oral and partly clinical. The examination in oral pathology and bacteriology and dental surgery is partly written, partly oral and partly clinical, and includes the examination of patients and operative dental surgery. Candidates who have passed the primary examination are admissible to the examination on production of evidence of having been engaged in the acquirement of professional knowledge for not less than two years subsequent to the date of having obtained a qualification and having held for not less than six months a hospital appointment or appointments approved by the Council.

Dentist to the King

The King has appointed Robert Charles Scott Dow as Honorary Surgeon Dentist to His Majesty in Scotland, to succeed Leslie Charles Broughton-Head, who resigned. Dr. Scott Dow practices in Edinburgh, where he holds the appointments of Honorary Dental Surgeon to the Royal Infirmary and Honorary Dental Surgeon to the Edinburgh Dental Hospital, and until recently he lectured in dental materia medica at the Edinburgh Dental School.—*John Boyes, University of Durham, Newcastle Upon Tyne, England.*

Distribution of Medical Care.—One of the troublesome problems of our generation is how we are to make available to the entire population the preventive, diagnostic and curative services of modern medicine. The lag between the brilliant development of medicine as a technology and its broad distribution to the public has in recent years become increasingly evident. The art of medicine has forged far ahead of the organization by which it is made widely available. The statistics of the draft in this last war cannot be explained except on the basis that a large portion of our population receives insufficient and inadequate medical care. . . .

Perhaps the controlling barrier to the provision of adequate medical care in recent times has been economic. Illness is unpredictable, and its economic burden is also unpredictable. A family can ordinarily determine how much of its income will go for rent, clothing or food, but no one can decide in advance what a year's cost of sickness will be. The removal of that barrier seems to require either a compulsory or a voluntary system of insurance on an over-all community basis—some prepayment device that would bring, in Winston Churchill's words, "the magic of the averages to the rescue of the millions." In Great Britain, Australia, New Zealand and parts of Canada, for example, and in the Scandinavian countries as well, the governments themselves have assumed the responsibility, and the costs of medical care are a charge against government budgets. Here in the United States the large size of the country and a traditional interest in utilizing local initiative have led to a variety of experiments based on the principle of voluntary insurance, but it cannot be said that any one of them thus far fully answers the need.—*Raymond B. Fosdick, The Rockefeller Foundation: A Review for 1946. New York: Rockefeller Foundation, pp. 14-16.*

1947 JANUARY-JUNE INDEX OF A.D.A. JOURNAL PUBLISHED

The Index to Volume 34 of THE JOURNAL OF THE AMERICAN DENTAL ASSOCIATION, covering the first six months of 1947, is available now on request.

Those desiring a copy should write to the American Dental Association, 222 East Superior St., Chicago.

DENTAL SOCIETIES

JARVIE MEDAL AWARDED TO CLYDE HENRY SCHUYLER

The Dental Society of the State of New York awarded the Jarvie Fellowship Medal for 1947 to Clyde H. Schuyler.

The award, which was made at the seventy-ninth annual meeting of the society held in Buffalo last May, is presented to members of the dental profession whose service to dentistry and mankind merits recognition.

Dr. Schuyler is a former president of the First District Dental Society of New York and for many years has been especially active in the field of prosthetic dentistry. He is a past chairman of the American Full Denture Society and of the Full Denture Section of the American Dental Association.

In World War II, Dr. Schuyler served as chairman of the Military Affairs Committee of the State of New York and acted in an advisory capacity to the director of Selective Service of New York City as well as to the office of Procurement and Assignment Service.

Dr. Schuyler has also been active in an advisory capacity to the Department of Welfare of New York City. He formerly occupied the Chair of Prosthetic Dentistry at New York University. Dr. Schuyler is Past Grand Master of the New York Chapter of Psi Omega Fraternity.

ANNUAL MIDCONTINENT DENTAL CONGRESS MEETS DECEMBER 1-3

The seventh annual Midcontinent Dental Congress, sponsored by the St. Louis Dental Society, will be held December 1-3, at the Hotel Jefferson, St. Louis, D. W. Brock, chairman of the publicity committee, has announced.

The clinic committee of the Congress has replaced the large array of general table clinics usually presented at the Congress with selected lecture clinics covering every phase of dentistry. The clinics will be open to all.

CHICAGO SOCIETY ENLARGES SCHOOL DENTAL SURVEY PROGRAM

The Committee on Dental Health Education of the Chicago Dental Society has scheduled programs for fifty-nine new schools with an enrollment of nearly 13,000 children.

From September 2 to January 23 these pupils are being provided with various types of educational materials. They will be shown sound motion pictures on dental health and will receive full oral examinations. Those found to be in need of dental care will receive referral slips to be taken to their family dentists. After corrections have been made the slip signed by the dentist will become a permanent part of the pupil's school record. A new dental survey record form will be used in schools starting the program this year.

During the past school year, 14,441 children were surveyed in sixty-five schools. Educational programs were given to a total of 17,308 pupils in seventy-five schools. Eighty-eight per cent of the children surveyed were found to be in need

of dental care, with an average of four carious teeth for each child. In some schools 100 per cent of the children needed dental attention.

NEW YORK PLANS DENTAL CARE FOR WELFARE RECIPIENTS

The New York State Association of Public Welfare Officials, the State Department of Social Welfare and the New York State Dental Society adopted principles and recommendations for providing high-standard dental care within the framework of a tax-supported service to recipients of public welfare.

The joint statement recommended that all children under the care of the welfare department be given dental examinations every six months, that orthodontic treatment be made available to eligible children, that a full time dental officer be employed by the State Department of Social Welfare and that dental advisory committees be appointed to assist public welfare officials.

LATEST DENTAL SOCIETY ACTIVITIES AND MEETINGS

Alabama.—The 1948 meeting of the Alabama Dental Association will be held at the Tutwiler Hotel in Birmingham, April 15-17, according to an announcement by George W. Matthews, secretary-treasurer.

California.—The next annual meeting of the California State Dental Association will be held in San Francisco, April 26-28, 1948, according to an announcement by Lloyd E. Linehan, secretary.

Indiana.—Carl A. Frech, secretary of the Indiana State Board of Examiners, announces that the Indiana State Board examinations scheduled for November 3-6, 1947, will be held in Indianapolis.

Louisiana.—W. G. Vernon and W. B. Corley, both of Alexandria, have been named general chairman and co-chairman, respectively, of the sixty-eighth annual meeting of the Louisiana State Dental Society, April 8-10, 1948.

Sterling V. Mead addresses the House of Delegates before turning the gavel and the administration of the American Dental Association over to his successor, H. B. Washburn

Maryland.—A change in the dates of the annual meeting of the Maryland State Dental Association from April 29-May 1 to May 3-5, 1948, has been announced by J. Hinton Shackelford, secretary.

Tennessee.—The Tennessee State Dental Association will hold its eighty-first annual meeting May 24-27, 1948, at the Hotel Peabody in Memphis.

Texas.—The Texas State Board of Dental Examiners will hold its next meeting in Dallas, beginning November 16, 1947. For application and pertinent information address R. T. Weber, secretary, 311 Capital National Bank Bldg., Austin. All applications must be received by October 16, 1947.

DENTAL EDUCATION

MONTREAL UNIVERSITY AWARDS DR. THIBERT HONORARY DEGREE

J. A. N. Thibert, Fitchburg, Mass., was awarded the honorary degree of *Doctorat Honoris Causa* from the University of Montreal at the recent convention of the Franco-American Dental Society in Boston.

Dr. Thibert, one of five dentists who have been so honored in the United States, was awarded the degree in recognition of his work among the Franco-Americans and in dental societies. Dr. Thibert was a founder and first president of the Franco-American Dental Society.

ANNOUNCE POSTGRADUATE SCHEDULE AT MICHIGAN

The schedule of postgraduate courses to be offered at the School of Dentistry, University of Michigan, during the 1947-1948 school year has recently been announced by the W. K. Kellogg Foundation Institute.

The courses are available to civilian dentists as well as to returned servicemen. Students will be provided with the less expendable instruments but will be required to purchase consumable supplies. A list of these materials will be sent to the student at the time of enrollment.

The schedule of these courses to January 1 is as follows: A two day course in partial denture prosthesis, opening October 16; operative dentistry, October 27-November 7; dentistry for children, November 10-21; crown and bridge prosthesis, November 10-21; operative and interpretive radiodontics, November 17-21; root canal surgery, December 1-12; periodontia, December 1-12, and oral surgery (minor), December 8-19.

Additional information may be obtained by writing to the Office of the Director, Kellogg Foundation Institute, Ann Arbor, Mich. Application for any of these courses should be made as soon as possible, since the enrollment is rapidly being completed.

DENTISTRY ABROAD

GUATEMALA DENTAL SOCIETY NAMES OFFICERS FOR 1947-1948

Sociedad Dental de Guatemala recently named members to its board of directors for 1947-1948.

The new officers are Guillermo Caceres, president; Enrique Estrada H., vice-president; Julio Molina Galvez, secretary; Arturo Galvez Sobral, treasurer; Alfonso Palomo A., pro-secretary, and Fernando Palomo G., librarian.

DENTAL ASSOCIATIONS IN BRITAIN HOLD JOINT MEETING

A joint meeting of the members of the Representative Board of the British Dental Association, the Head Council of the Incorporated Dental Society and the Central Committee of the Public Dental Service Association was held in June at the home office of the British Dental Association.

W. R. Tattersall, chairman of the Representative Board, was elected chairman of the conference. He was supported on the platform by T. Leaver, vice-president of the Incorporated Dental Society, and H. C. Gray, chairman of the Public Dental Service Association.

The meeting was called for the purpose of considering the dental arrangements under the National Health Service Act. In the light of information available at the time, it was resolved that the Minister of Health be requested to include in the regulations made under the National Health Service Act provision for (1) remuneration by means of a

grants-in-aid system, (2) terms of service which do not perpetuate many of the unwanted features of the Dental Benefit Regulations at the expense of accepted features of private practice and (3) terms of service which provide for greater freedom of the dentist in carrying out treatment without prior approval. It was also resolved to request that the Minister of Health introduce no legislation that would weaken the profession.

CZECH JUBILEE CONGRESS OF STOMATOLOGY HELD JUNE 11-15

The Czechoslovak Congress of Stomatology was held in Prague June 11-15 in celebration of the fiftieth anniversary of the foundation of the first Czech dental organization.

Papers on dental caries and its prevention were read by Professor Kostecka of Prague and Professor Dechaume of Paris. Other papers dealt with the general diseased conditions of the gums and the use of sulfonamides and penicillin. One lecturer from Prague spoke on synthetic resins and their use in stomatology and reported that the industry is trying to prepare a material that will harden in the human mouth and can be used for fillings.

The program also included 105 papers on operative dentistry, oral surgery, roentgenography, periodontics, orthodontics, prosthetics and occupational stomatology.

DENTAL WEEK TO BE OBSERVED IN PARIS, NOVEMBER 26-30

The Twenty-First Dental Week of Paris, formerly known as the Franco-Belgian Dental Week, will be observed November 26-30, under the auspices of the Dental Technique Group of Paris.

Meetings will be held in the *Ecole Odontotechnique de Paris,* 5 rue Garanciere, Paris (6).

RAPID GROWTH OF DENTAL ASSOCIATION IN INDIA NOTED

From a membership of only 132 on the day of the inauguration of the All-India Dental Society Conference on January 14, 1946, the society's members have increased in number to nearly 1,000, according to the first annual report submitted by the general secretary, N. N. Bery.

Before 1946, the dental profession in India was represented by independent associations in Bombay, Calcutta, Lahore, Delhi and Poona. Soon after the conference in 1946, many branches, local and provincial, were formed, and at present there are 25 branches located throughout India.

The *Indian Dental Journal* became the official organ of the association with publication of the special conference number in February 1946 and recently was renamed the *Journal of the All-India Dental Association.* R. Ahmed, who toured the United States after attending the Boston meeting of the American Dental Association, continues his dual role as president of the association and editor of the journal.

Among other developments of the association in India which Dr. Bery pointed out were the framing of a dental bill for control and regulation of practice throughout the country, the sanction of the government through the recommendations of the association's Bhore Committee for the erection of an All-India Medical Institute in Delhi and the awarding of some 50 foreign study scholarships in 1946 in a five year program of continuance of graduate study abroad.

BRITISH SURGEONS COLLEGE ESTABLISHES DENTAL FACULTY

The Royal College of Surgeons in England has announced the establishment recently of a faculty of Dental Surgery.

The members of the faculty are the president and vice-presidents of the college, the fellows and licentiates in dental surgery of the college and any other members of the Board of the Faculty of Dental Surgery. The members of the first Board of the new faculty are the president and vice-presidents of the college and eighteen fellows and three licentiates in dental surgery.

ARMY AND NAVY

NEW NAVY REGULATIONS IMPROVE DENTAL CARE OF PERSONNEL

The Chief of Naval Operations has distributed to all ships and stations the advance changes in United States Navy Regulations which will add to the dental care provided for the personnel of the Navy and Marine Corps.

Included in these changes are the provisions that a dental officer shall be the head of the dental department at each ship and station and that he shall be responsible to the commanding officer for all dental matters. Previous to these orders, dental care had been provided as part of the function of the medical department and the medical officer had been responsible to the commanding officer for dental matters as well as medical matters.

These advance changes define the duties and responsibilities of dental officers as required by Public Law 284, which was enacted by the Seventy-Ninth Congress. The new regulations contain authority for officers of the Dental Corps to command strictly dental activities such as naval dental schools, naval dental technician schools, base and post dental detachments and separate dental clinics. In the past the Secretary of the Navy has established several separate dental activities under dental officers in command, but authority for this procedure has not been contained in Navy Regulations.

PROMOTIONS GIVEN TO NINE ARMY DENTAL CORPS OFFICERS

Nine officers of the Dental Corps of the United States Army have been promoted to the next higher grade.

This group of promotions includes two majors advanced to the grade of lieutenant colonel and seven captains promoted to major. Those promoted, with present assignments indicated, are:

Major to lieutenant colonel: Elmer O. Hinman, assigned to Far East Command, and Clarence P. Banby, Manila, P.I.

Captain to major: Thomas P. Seay, Fifth Army Central Dental Laboratory, St. Louis; Arthur J. Hemberger, Letterman General Hospital, San Francisco; John W. Mainwaring, Jr., Army Dispensary, Pentagon, Washington, D. C.; Thomas G. Fowler, Valley Forge General Hospital, Phoenixville, Pa.; George G. Lesemann, Far East Command; Jerome T. Smith, Fort Lewis, Wash., and Garnet P. Francis, Jr., Fort Bragg, N. C.

ARMY REPORTS WARTIME MOBILE DENTAL SERVICE

The development of mobile dental service for the armed forces is described by the United States Army Medical Department as one of the important facilities in military preventive medicine and professional care during World War II.

In the July issue of the department bulletin an article summarizing the developments in military medicine during the last war states that, as in the case of surgical service, efforts were made to bring dental service as near to the fighting lines as possible. In the period after June 1, 1943, development of a mobile dental laboratory was pushed to completion, and a contract for 107 units was let in December 1943.

These laboratories, mounted on 2½-

Henry A. Swanson, Washington, D. C., is shown viewing the exhibit of the Army Institute of Pathology at Mechanics Hall during the Boston meeting

ton trucks, made it possible for an officer and four men to provide modern prosthetic service in isolated locations and in forward areas. Men requiring dental replacements were no longer sent to hospitals in the rear for a week or more while their appliances were being constructed but had their work completed in the vicinity of their own units, while maintaining their on-duty status.

In December 1943, Surgeon General Norman T. Kirk approved development of a mobile dental operating truck. A pilot model was completed by February 1944 and a purchase order for 35 units was placed in June 1944. With delivery of these operating trucks overseas in 1945, dental officers caring for smaller, isolated organizations were provided convenient, complete outfits which could be moved on short notice without loss of time for unpacking and assembling equipment. The 2½-ton, 6-wheel-drive truck could cover any terrain accessible to wheeled vehicles and carried its own water supply, heating facilities and electric generating outfit. The operator had protection from unfavorable weather and

all the advantages of running water, good light and electrically powered equipment.

Dental field equipment was also modernized by the addition of a motor in November 1944, by the addition to the operating chest of an electric light in June 1945 and by the provision in the laboratory outfit of an electric lathe in October 1945.

PUBLIC HEALTH

LOCAL HEALTH AGENCIES MEET AT APHA PRINCETON CONFERENCE

Representatives of sixty-five national citizens' organizations attended the first Conference on Local Health Units sponsored by the American Public Health Association, which was held September 8-10, on the campus of Princeton University.

The purpose of the conference was to discuss a program of adequate public health services for every citizen in the United States in which the various national agencies would participate. Allen O. Gruebbel, executive secretary of the Council on Dental Health, attended the meeting as the official representative of the American Dental Association.

Delegates heard a faculty of national experts in public health portray the fact that approximately 41,000,000 Americans now live in communities which are without a full time local health department.

The plan sponsored by the American Public Health Association calls for: (1) passage of state laws authorizing creation of county-wide, city-county or multi-county units of health jurisdiction covering not less than 50,000 persons; (2) employment of professionally qualified full time health officers at appropriate salaries; (3) requirement by law that health departments carry on certain essential standard activities; (4) tax support of at least $1 per capita, not less than one-half from local sources, and (5) creation of community health councils in each jurisdiction.

At an earlier conference held at the School of Public Health, University of Michigan, in Ann Arbor, this program was fully discussed by the official health administrative officers of the forty-eight states. This conference was conducted under the auspices of the American Public Health Association and the Association of State and Territorial Health Officers. The Princeton conference, like the one at Ann Arbor, was made possible by a grant from the W. K. Kellogg Foundation.

HEALTH AND WELFARE OFFICIALS LEAVE ON MISSION TO JAPAN

The War Department has announced the departure in August of a six-man mission to Japan, sent at the request of Gen. Douglas MacArthur, Supreme Commander for the Allied Powers.

The group will attempt to evaluate and to make recommendations regarding measures to achieve a sound social security system for Japan.

Arthur J. Altmeyer, commissioner of the Social Security Administration, heads the mission, which also includes Joseph W. Mountin and Burnet M. Davis, United States Public Health Service; Barker S. Sanders, Social Security Administration, and Francis A. Staten, Public Housing Authority.

General MacArthur, last April, requested that Mr. Altmeyer be invited to head a six-man mission that would visit Japan in September for a period of thirty to ninety days. The mission will consult with the Public Health and Welfare Section, Supreme Command of the Allied Powers, and will offer technical guidance to the Japanese Committee on Social Insurance and the Japanese Council on Medical Care which are presently engaged in drafting a coordinated national health bill.

OTTAWA, KAN., CHECKS FIRST YEAR OF WATER FLUORINATION

In September 1947 Ottawa, Kan., completed the first year in its ten-year program for fluorinating the city water supply and at that time raised the fluorine content from 0.3 part per million to 1.0 part per million.

The cost of treatment, which is borne by the city, is estimated at approximately seven cents per capita.

F. J. Maier, senior sanitary engineer, United States Public Health Service, checked the daily fluorine readings of the city water plant and approved the project on March 27, 1947.

A detailed dental examination made of the 1,800 Ottawa school children disclosed that the DMF rate for 14-year-olds is 5.3; the number of missing teeth and teeth indicated for extraction is 64 per 100 children; 36 per cent of the children had teeth missing and teeth indicated for extraction.

GENERAL NEWS

FOUR DENTISTS FEATURED IN YANKEE NETWORK SERIES

Four prominent dentists from the Northeast have been featured in a broadcast series sponsored by the Yankee Network Institute over the twenty-six stations of this network in New England.

The subjects for discussion were based on the importance of teeth and health and the effect of teeth on personality. H. Bishop Osgood talked on "When Shall I Take My Child to the Dentist?"; Raeburn R. Davenport, former professor at Harvard School of Dental Medicine, Forsyth Dental Infirmary for Children and Tufts College Dental School, discussed "Primary Teeth"; Clarence E. Parker, president of the Northeast Dental Society, analyzed "Your Teeth and Personal Appearance", and W. R. Pepin, former faculty member of the Harvard School of Dental Medicine, explained "Why Teeth Decay."

SOCIETY FOR CRIPPLED TO MEET IN CHICAGO, NOVEMBER 3-5

The National Society for Crippled Children will hold its annual convention November 3-5 at the LaSalle Hotel, Chicago.

The program for the first day will be developed on the convention theme, "The Handicapped—a Great National Resource." "Rehabilitation" and "Cerebral Palsy" will be the topics for the following days.

NATIONAL CANCER INSTITUTE ANNOUNCES NEW APPOINTMENTS

The appointment of Leonard A. Scheele to succeed R. R. Spencer as chief of the National Cancer Institute of the U.S. Public Health Service, effective July 1, was announced by Thomas Parran, Surgeon General, at the quarterly meeting of the Institute's National Advisory Council, in Bethesda, Md. Dr. Scheele was formerly assistant chief of the Institute.

Simultaneously, the appointment of A. C. Ivy, vice-president of the University of Illinois, to fill the post of executive director of the National Cancer Advisory Council was announced. Dr. Ivy succeeds George M. Smith, professor emeritus of Yale University, who resigned some months ago for reasons of health.

The resignation of Dr. Spencer, widely known for his research achievements in the biologic sciences before he joined the National Cancer Institute in 1939, does not mark his withdrawal from the work of the Institute. He will continue to spend full time on two phases of the cancer program, professional education and research.

REPORTS OF

COUNCILS AND COMMITTEES

COUNCIL ON DENTAL HEALTH

THE DENTAL PROFESSION'S RESPONSIBILITY IN THE EDUCATION OF THE PUBLIC

For several decades the dental profession has supported and has been engaged in health education activities. The dental profession initiated and has supported health education programs in order to fulfill its responsibilities in raising the level of health of the public. In planning the health education program of the American Dental Association, the Council on Dental Health concluded that a need existed for a basic statement of principles and objectives which defines the dental profession's responsibility in the education of the public.

During the past year the Council on Dental Health studied the problem, and the following statement of responsibilities was adopted during the 1947 annual meeting in Boston.—*Allen O. Gruebbel, Executive Secretary.*

The Dental Profession's Responsibility in the Education of the Public

By dental profession is meant the organized profession; namely, the American Dental Association and constituent societies.

I. Policies

A. The dental profession has the responsibility to furnish leadership and guidance for the development and execution of a comprehensive, coordinated, long range, educational program which ultimately will transpose into action the principles and objectives adopted by the American Dental Association for the betterment of the dental health of the American people. This health education program should be a process of providing experiences for children and adults for the purpose of favorably influencing their knowledge, attitudes and practices relating to dental health.

1. The long range program should be divided into periods in which areas of dental health may receive special emphasis, in the order of their importance.

2. In initiating a period in which an area of dental health is to be stressed, the dental profession should exercise leadership and aid in creating the occasion and suggesting procedures wherein all dental, official and voluntary groups and individuals interested and affected in the specific area of dental health education may participate.

B. In all instances it is the responsibility of the dental profession:

1. To publish and make available authentic information and to provide consultation services on matters concerning the public dental health.

2. To aid groups and individuals to edit and evaluate educational materials to be used for educational purposes.

3. To stimulate cooperation and participation of dental, health, education, welfare and P.T.A. officials, commercial agencies and other interested groups and persons in developing and utilizing educational devices and procedures designed ultimately to attain goals.

II. Procedures

A. The American Dental Association has the responsibility to select an advisory committee or group of consultants in the Council on Dental Health, composed of representatives of dental, health, medical, nursing, educational, welfare, P.T.A., publicity and other essential groups. This committee shall advise persons in charge of the educational program

in matters pertaining to the content and the planning, initiating and executing of the overall program and specific areas in the program.

B. Participation of membership of the dental profession

The American Dental Association should:

1. Inform and interest the members of the dental profession relative to all phases of the educational program.

2. Stimulate them to do their part in presenting and integrating the dental program in community health programs.

3. Urge them to support the program by performing the recommended services.

These purposes may be accomplished through: schools of dentistry, dental societies and journals of component organizations; preparation of manuals, booklets, leaflets, lectures and articles; presentation of refresher courses; organization of councils on dental health; conducting of workshops, and the use of other promotional methods and devices.

C. Areas in dental health education

1. In public health administration the total population is usually divided into the following groups: (1) prenatal, (2) infant, (3) preschool, (4) school and (5) adult.

Other special areas in dental health education include industrial diseases, cancer, depletive diseases, research, legislation and socioeconomics.

2. Education programs in specific areas

a. Educational copy or material prepared for specific areas should not only supply factual information but should also present it in a manner which will change passive or negative attitudes of individuals in regard to dental health into positive ones, and it should supply motivation to convert "knowledge" into "action."

b. Representatives of dental, health, education, welfare, P.T.A. and other essential organizations should be asked to aid in preparing educational copy to be used by participating groups in each of their areas of activity in the dental program.

c. All of the arts of publicity, such as visual, auditory and other teaching aids, that legitimately can be used and are needed properly to promote the program should be utilized.

d. The educational program should be timed in such a manner that it may operate at the peak of effectiveness.

e. A formula for evaluation should be devised to measure accomplishments.

III. Resource of educational materials

It is the responsibility of the American Dental Association at all times to supply or make available authoritative information and educational material on all phases of dental health and also visual, auditory and other types of aids and devices:

A. For the practicing dentist to supplement his personal instruction to his patients in all age levels.

B. For teachers, dentists, health and welfare workers and others for use in schools, conferences and talks and for general distribution to children and parents.

C. For authors, publishers and other purveyors of health information to the public.

D. For presenting programs to adult lay, professional and community health groups.

E. For exhibits at professional and other meetings, fairs, window displays and other types of health exhibits.

COUNCIL ON DENTAL THERAPEUTICS

MISBRANDED HEAT LAMPS SEIZED BY THE FOOD AND DRUG ADMINISTRATION

1888. Misbranding of heat lamps. U.S. v. 75 Devices called both Mir-A-Kal Ray Health Lamps and Eastman Filtered Infra-Red Heat Lamp, and a number of circulars. Consent decree of condemnation. Product ordered released under bond. (F.D.C. No. 18359. Sample No. 16022-H.)

Libel Filed: November 13, 1945, Eastern District of Wisconsin.

Alleged Shipment: By the J. H. Eastman Co., from Detroit, Mich. The lamps were shipped on or about April 23 and September 21, 1945. Some circulars were shipped with the lamps and the remainder were shipped on various dates during 1945.

Product: 75 of the above-named devices at Milwaukee, Wis.; also approximately 500 circulars entitled "Eastman Filtered Infra-Red Heat Lamp. The Safe and Modern Way to apply Heat Therapeutically," approximately 1,000 circulars entitled "Eastman Mir-A-Kal Ray Health Lamp," and approximately 1,000 circulars entitled "The Eastman Filtered Infra-Red Heat Lamp. A scientifically Improved Principle in Heat Therapy."

Nature of Charge: Misbranding, Section 502 (a), certain statements appearing in the circulars were false and misleading since they represented and suggested that the application of heat (infra-red radiations) by use of the article would be effective in the treatment of, and would bring relief from, congestion, sinus infection, head colds, coughs, arthritis, neuritis, catarrh, backache, lumbago, bronchitis, sciatica, rheumatism and aches and pains caused by congestion and resultant breakdown in circulation; that it would be effective in the treatment of, and would bring relief in, sore throat, acne, menstrual pains, dental pain and pain generally; and that it would restore and maintain radiant health and would aid in healing after dental extraction. The application of heat (infra-red radiations) would not be effective in bringing about the benefits claimed for the article.

Disposition: February 6, 1946. The J. H. Eastman Co., claimant, having consented to the entry of a decree, judgment of condemnation was entered and the product was ordered released under bond, conditioned that it be withheld from sale until the circulars were revised to comply with the law or destroyed under the supervision of the Federal Security Agency.

June 1947.

SHIPMENT OF HALL'S CANKER REMEDY ORDERED DESTROYED

THE Food and Drug Administration of the Federal Security Agency has issued the following Notice of Judgment dated April 1947:

1835. Misbranding of Hall's Canker Remedy. U. S. v. 372 Bottles of Hall's Canker Remedy. Default decree of condemnation and destruction. (F.D.C. Nos. 16767 to 16769, incl. Sample Nos. 31454-H to 31456-H, incl.)

Libel Filed: July 5, 1945, Southern District of California.

Alleged Shipment: Between the approximate dates of January 23 and April 13, 1945, by Hall's Canker Remedy, from Salt Lake City, Utah.

Product: 372 3-ounce bottles of Hall's Canker Remedy at Los Angeles, Calif. Examination showed that the product consisted essentially of zinc sulfate, borax, sugars and water.

Nature of Charge: Misbranding, Section 502(a), the label statements, "Canker Remedy * * * Aids in the Treatment of Canker, Simple Sore Throat, and all Minor Mouth * * * Irritations * * * If the Canker is not relieved, repeat dose as before," were false and misleading since the article would not be effective in the treatment of the conditions mentioned.

Disposition: July 30, 1945. No claimant having appeared, judgment of condemnation was entered and the product was ordered destroyed.

PRESENT STATUS OF DI-O-CHROME

DI-O-CHROME is a trade name applied by the Warren-Teed Products Company, Columbus, Ohio, to two flavored aqueous solutions of sodium dichromate and boric acid. The firm did not disclose the quantitative composition of these solutions upon request, and it was necessary for the Bureau of Chemistry of the American Dental Association to analyze samples purchased on the open market. The findings indicated that their composition was as follows:

Di-O-Chrome: Each 100 cc. contains sodium dichromate ($Na_2Cr_2O_7.2H_2O$), 2.5 gm.; boric acid (H_3BO_3), 1.0 gm.; saccharin, about 0.33 gm., and water, flavored with oil of peppermint or menthol. The pH value was 5.3 at 23 C.

Di-O-Chrome Professional Strength: Each 100 cc. contains sodium dichromate ($Na_2Cr_2O_7.2H_2O$), 5.0 gm.; boric acid (H_3BO_3), 1.9 gm.; saccharin, about 0.31 gm., and water, flavored with oil of peppermint or menthol. The pH value was 5.0 at 22 C.

In response to a routine request for scientific evidence to support the claims made for Di-O-Chrome, the firm cited an article by Kitchin and Brown in the June 1932 issue of *Dental Cosmos*.[1] An inquiry dated May 23, 1946, was addressed by the Council office to Dr. Kitchin, who replied in part as follows:

> In response to your letter of May 23, may I state that I have not used the particular product known as Di-O-Chrome. The concentrated solution contains approximately as much sodium dichromate as did the material which Dr. J. B. Brown described in the *Dental Cosmos*, LXXIV, 538, 1932. However, we incorporated with it more boric acid (4 gms.). . . .
>
> The work which Dr. Brown and I reported was not a controlled experiment but a small series of cases in which we reported the clinical effects and the appearance of gingival sulcus smears after using the solution.

The firm later arranged with a dentist to conduct a series of clinical trials of its Di-O-Chrome products. The results of the trials were reported to the Council office and directed to the attention of the Council referee, who viewed the report as inadequate and unimpressive.

The failure of the firm to disclose the complete quantitative composition relegates the Di-O-Chrome products to the class of semisecret preparations. It is desirable that the dentist know precisely the nature and concentration of any drug he is asked to use.

In accordance with the usual procedure, the Council on Dental Therapeutics will continue to evaluate evidence which may appear with regard to Di-O-Chrome and other products advocated for use in the treatment of Vincent's infection.

The Council has authorized publication of this report.

1. Kitchin, P. C., and Brown, J. B., A Preliminary Report on a Mouthwash for the Treatment of Vincent's Infection. *D. Cosmos* 74:538 (June) 1932.

CASES AND COMMENTS

The Responsibility of the Book Reviewer

To the Editor: Some of my reviews of textbooks on anatomy have been criticized severely. An explanation of my views on book reviewing seems desirable.

I am well aware of the fact that no textbook has been written or can be written that does not contain errors and mistakes. Hunting for errors and their exposure is certainly not the primary "duty" of a reviewer. In weighing errors the reviewer must consider three points: the number of errors, their level and the parts of the book "between" the errors. If there are too many errors, if they are on a level so low as to cast doubt on the competence of the author and if they are not even partly compensated by a high level of the book as a whole, constructive criticism is impossible and the reviewer has the duty to warn the readers in unmistakable terms. If he fails to do so, he lacks the sense of responsibility which is expected by the readers and the editor who has solicited his services.

From an experience of thirty years as a reviewer of scientific books I can assure you that the writing of a condemning review is not only a thankless task but also a thoroughly unpleasant job that requires considerable courage. The reviewer knows the danger of being regarded as prejudiced or malicious or as motivated by professional jealousy. Lack of courage and fear to offend the author and his friends has made critical and useful reviews extremely rare, and many competent scientists refuse any request of an editor for a book review. "Announcements" of books, giving a table of contents and the price and sometimes adorned with a few polite but hollow phrases, have led to a deterioration of dental literature. In the absence of honest criticism even the worst books find enough buyers to encourage authors to forget self-criticism and publishers to lower their standards.

To write a textbook requires much more than a routine knowledge of a special field. A teacher who does not know infinitely more than what he expects his students to learn has not the right to write a textbook. If he does so in spite of this obvious fact, he proves that he lacks self-criticism and that sense of responsibility which the profession of teaching and the writing of textbooks entails.

If honest, factual and justifiably sharp criticism is resented and discredited as a personal attack, simply because it is necessarily directed against an individual person—the author—then dental literature will be swamped, as in the past, by books which can only force a condescending smile to the face of a scientist outside the profession. Then the prestige of the dental profession will never rise to the high level to which it rightly aspires.—*Harry Sicher, Departments of Anatomy and Research, Loyola University, School of Dentistry, Chicago College of Dental Surgery.*

Lever Action of the Mandible

To the Editor: The conclusions of Marsh Robinson in his article on reflex controlled nonlever action of the mandible which appeared in the October 1, 1946, issue of THE JOURNAL may appear to many as a death sentence passed on leverage in the mandible. We are sure that Dr. Robinson had only secondhand knowledge of the principle he condemns, because his attacks are directed against the mandible acting as a lever of the third class and he does not even mention the equally important idea of the mandible acting as a lever of the first class in unilateral mastication.

A. Gysi's basic research work on leverage was undertaken before 1915 and was published in 1921.[1]

We have re-examined the question, because one of us (H.W.) had been successful since 1927 in clinically treating unilateral arthritis of the temporomandibular joint according to Gysi's theory on leverage.

With Gysi's approval we have cast his fundamental findings into a teachable form for undergraduates.

Gysi's first law of leverage of the mandible is that in bilateral chewing the mandible acts

1. Gysi, A., Studies on the Leverage Problem of the Mandible, *D. Digest* 27:74-84, 144-150 (February, March, April) 1921.

as a lever of the third class. It was found in experiments that, while food passes from bicuspid to molar regions, pressure on the teeth is increasing and pressure on the condyles is diminishing, the muscular force exerted being equal in all three experiments (12 kg.).[2]

Gysi's second law of leverage of the mandible is that in unilateral chewing the mandible acts as a lever of the first class. As tough food passes from the bicuspid to the molar region, pressure on the condyle of the working side decreases to a negative value (-0.75 kg.), and high pressure is maintained on the condyle of the opposite side (8.57 kg.), muscular force being always the same (12 kg.) in these experiments. These conclusions were the result of mechanical experiments executed by Gysi on a big wooden model of the mandible, on which the resultant force of every muscle had been represented by means of an adjustable spring balance.

We did research work in order to ascertain if these purely mechanical principles, especially Gysi's second law, would produce definite anatomic alterations of the parts involved. Our findings were positive and may be summed up as follows: (1) Prolonged unilateral mastication wears down the eminentia articularis of the opposite (balancing) side and may completely flatten it out. (2) The condyle of the balancing side shows signs of arthritis. Its head may be partially or completely worn off. (3) The ramus of the balancing side may be shortened as much as 12 mm., if compared with the ramus of the chewing (toothbearing) side. (4) The angle of the mandible of the balancing side widens and may be as much as 5 degrees wider than that of the chewing side. (5) Abrasion of teeth is more pronounced on the balancing side than on the chewing side.

Our work has been conducted on 6 skulls of primitive men from the Pacific islands and Australia, on 6 skulls of civilized Europeans and on 2 skulls of monkeys. The picture has been completed by clinical observations of 4 living human beings. In persons who are unilaterally edentulous the painful joint will always be found on the side where there are less or no teeth (balancing side).

We do not contest Dr. Robinson's conclusion that mastication is a reflex action, but we have produced physical, anatomic and clinical evidence that leverage plays a most important role in this function and that prolonged unilateral mastication deforms not only the mandible but also the entire skull, according to Gysi's purely mechanical concept of leverage.

—Heinrich Wild, 10 Bäumleingasse, and Roland Bay, 38 Socinstrasse, Basle, Switzerland.

2. Wild, Heinrich, and Bay, Roland, Die Gysi'schen Hebelgesetze am Unterkiefer. *Schweiz. Monatschr. f. Zahnheilkunde* 55:879 (November) 1945.

Glossitis Rhombica Mediana: Report of a Case.

By Frank C. Amaturo, D.D.S., and Alfred B. Falk, M.D., Chicago.

An infrequently encountered benign condition of the tongue, glossitis rhombica mediana, presents a clinical picture that is alarming to the patient and requires assurance on the part of the dentist and the physician. This condition was first described by Brocq and Pautrier[1] and Fordyce and Cannon.[2] The present name did not come into use until Lane[3] first used it in 1924.

The following report is presented as an illustrative case.

A woman, aged 33, was seen in March 1947 for an examination of her teeth. An incidental finding was a large denuded area in the middle of her tongue. Since her husband was under therapy for syphilis, the patient was referred to a dermatologist (A.B.F.) for consultation. The patient gave no history of serious past illness, had felt well except for occasional pain about the right frontal sinus and had no symptoms referable to the tongue. The patient had never had syphilis.

The mouth was normal except for a hard, dime-sized, rhomboidal area in the middle third of the tongue (see illustration). The overlying epithelium was denuded.

The Kahn test indicated that syphilis was not present. Microscopic study of the tissue from the tongue revealed some benign acanthosis of the epithelium. The corium had many small dilated arterioles, capillary spaces and a large amount of small round cell infiltrate in the upper zone. The underlying connective tissue consisted of thick bands. Microscopic findings were consistent with the clinical diagnosis of glossitis rhombica mediana.

1. Brocq, L., and Pautrier, L. M., Glossite losangique mediane de la face dorsale de la langue. *Ann. de Dermat. et de Syph.* 5:1, 1914.

2. Fordyce, J. A., and Cannon, A. B., A Hitherto Undescribed Condition of the Tongue. *Arch. Dermat. & Syph.* 8:749 (December) 1923.

3. Lane, J. E., Glossitis Rhombica Mediana. *Arch. Dermat. & Syph.* 9:547 (May) 1924.

Lesion of glossitis rhombica mediana

Since glossitis rhombica mediana is an asymptomatic benign lesion, treatment is not indicated.—*31 North State Street.*

Effect of Operating Procedures on Patients. By Henry M. Cohen, D.D.S., New York.

Nothing so precludes the rendering of successful dental treatment as a tense, apprehensive patient. The quality and purpose of the treatment suffers and an unhappy patient is the result. No treatment can be really effective when the patient is forced to endure emotional strain, regardless of excellent planning and execution. Since unhappy patients have forebodings about future dental visits they fail to return for regular treatment.

The laxity displayed by some members of the profession with regard to such a vital factor in the rendering of dental treatment is astounding. The attitude generally assumed is that it is "up to" the patient whether he or she is to be a "good" dental patient. This conception is contrary to the real facts. A comparison of the following case procedures will demonstrate the importance of having a patient at ease.

Mrs. Smith is ushered into the dental operating chair for the removal of an upper molar. She has been advised previously of the treatment and its significance and the contingencies involved. Standing in front of the patient, the dentist administers the anesthetic. Then the armamentarium for the extraction is assembled on the bare bracket table in full view of the patient accompanied with the rattle and clamor of the steel instruments. In the actual operation the dentist vigorously proceeds with instruments which appear grotesque to the patient. The extraction is completed with the gory details marked by blood on the instruments, the table, the dentist's hands and around the patient's mouth, all accessible to the patient's view.

Mrs. Jónes enters the operating room for an extraction after administration of a preparatory hypnotic drug and is a little sleepy from the quick effects. With the armamentarium assembled quietly on a hospital serving tray out of the patient's sight the anesthetic is administered from behind the patient. Light diverting conversation maintained by the dentist and the nurse with the patient allows little time for anticipation of impending procedures. The only visible evidence of the extraction is the calm assurance that prevails. By keeping the tray to the back of the patient the dentist allows no unsavory sight to disrupt the patient's mental equilibrium. Immediately after the delivery of the tooth every trace of blood is removed from the lips and face of the patient with a moistened sponge scented with a drop or two of toilet water. The instruments on the tray are covered and wheeled out of sight. The only other evidence of the operation is the removal of the rubber gloves from the dentist's hands. The use of surgical gloves is another mute testimony of consideration as blood is not visible on them.

It is the duty of the dentist not only to eliminate pain in dental treatment but also to maintain the mental equilibrium of the patient. It must be remembered that there are disturbing optic and aural stimuli in addition to sensations of pain. With careful consideration it is easy to eliminate unnecessary mental anxieties from a patient. Burs, explorers and excavators should be kept together on a tray behind the patient. This is much more convenient for the dentist and more desirable from the patient's standpoint. The success and quality of the service is summed up in the ability of the dentist to perform an operation or treatment without disturbing the tranquillity of the patient.—*11 West Forty-Second Street.*

LIST OF DENTAL OFFICERS

SEPARATED FROM ARMY DENTAL CORPS

THE following list of dental officers separated from the Army Dental Corps does not include rank because such information is no longer furnished by the Surgeon General's Office. Publication will be given to other names as soon as possible.

Alabama	
South Birmingham	Rich, David R.
Arkansas	
Lepanto	Vise, Merida, Jr.
California	
Angwin	Law, Wilton K
Delano	Loader, Clifford F.
Long Beach	West, Lee N.
Los Angeles	Saubert, Walter J.
Los Angeles	Volat, Morris
Piedmont	Yore, Robert F.
San Diego	Stephens, Roy O., Jr.
San Francisco	Olsen, Emery W.
San Francisco	Olson, Chester G.
Santa Barbara	Emery, Clyde A.
Connecticut	
Bridgeport	Rockoff, Herman S.
Middletown	Zimmerman, Herbert I.
Springdale	Sahl, Harold A.
Waterbury	Zemans, John K.
District of Columbia	
Washington	Vickers, Carle R.
Georgia	
Fitzgerald	Tuggle, Wilmot E.
La Fayette	Levie, Walter H.
Illinois	
Chicago	Kowal, Roland A.
Chicago	Oldberg, Lester
Chicago	Reitman, Robert
Chicago	Siemion, Thaddeus J.
Chicago	Vlazny, Adalbert L.
Chicago	Wassell, Raymond E.
Earlville	Nichols, Ray M.
Evanston	Ullestad, Rolf J.
Genoa	Shesler, John W.
Roanoke	Wiles, Sylvester D.
Indiana	
Argos	Miller, John C.
Connersville	Worster, Paul T.
Indianapolis	Newman, Charles W.
Indianapolis	Pell, Glenn J.
Indianapolis	Spivey, Arthur W.
South Bend	Powell, George M.
Kansas	
Salina	Triplett, William J.
Wadsworth	Owen, Victor S.
Kentucky	
New Castle	Wyman, Elbridge W.
Louisiana	
Farmerville	Roberts, William O.
Jennings	Platt, Walter C.
Massachusetts	
Boston	Yavner, Murray
Danvers	Powers, Joseph A.
Lynn	Paris, Lawrence
Springfield	Rose, James M.
Whitman	Bucken, Walter M.
Michigan	
Detroit	Lifton, Herman M.
Detroit	Noble, Harold H.
Lansing	Sober, Erwin B.
Three Rivers	Niendorf, Charles F.
Minnesota	
Minneapolis	Laffitte, Herbert B.
Minneapolis	Nelson, Dudley H.
Red Wing	Edgerton, Karl A.
Mississippi	
Clarksdale	Stogner, Alton W.
Missouri	
Kansas City	Monsees, Albert J.
St. Louis	Mayfield, Eli B., Jr.
Nebraska	
Elm Creek	Richards, Arthur D.
Lincoln	Butz, Robert J.
Omaha	Konat, Edward J.
Osceola	Olson, Morris E.
New Hampshire	
Keene	Johnson, John R.
Manchester	Zitrides, Arthur G.
New Jersey	
Brunswick	Nagy, Arthur J.
Freehold	Strickman, Herbert
Hackettstown	Levitt, Arthur B.
Kearny	Wiener, Bernard
Montclair	Smith, Allan M.
Neptune	Siciliano, Genero
Newark	Panzer, Hubert B.
Passaic	Boyarsky, Sidney

Princeton	Wells, Edwin G.
	New York
Bronx	Krauser, Leonard H.
Bronx	Mirchel, Frank A.
Bronx	Stukalin, Samuel M.
Bronx	Zable, Abraham A.
Brooklyn	Altman, Jerome A.
Brooklyn	Citron, Sherman R.
Brooklyn	Fuerst, Hubert
Brooklyn	Kimmel, Howard
Brooklyn	Lane, Richard S.
Brooklyn	Medvin, Sydney A.
Brooklyn	Nussenbaum, Irving
Brooklyn	Parker, Harry S.
Brooklyn	Romm, Harold M.
Brooklyn	Rosenbliett, Murray
Brooklyn	Simring, Marvin
Brooklyn	Wilson, David L.
Buffalo	Schatz, Lester
Floral Park	Puorro, Eugene W.
Jackson Heights	Sellars, James S.
Kinderhook	Potts, Robert E.
Lackawanna	Pantera, Albin M.
Long Island City	Selwyn, Gerald
Newburgh	DeMeo, John
New York	Cohen, Paul
New York	Oppenheimer, Armand M.
New York	Parnes, Daniel
New York	Quain, Samanto
New York	Turer, Emanuel
New York	Wachtel, Sidney R.
New York	Wallick, Robert H.
Queens	Travis, Irwin W.
West Hempstead	Quast, William W., Jr.
	North Carolina
Fayetteville	Olive, Robert M., Jr.
Greensboro	Thomas, James T., Jr.
Shelby	Plaster, Harold E.
	Ohio
Akron	Stallings, William H.
Cleveland	Tucker, Samuel H.
Columbus	Devoe, Keith E.
Liverpool	Birnbaum, Norman
	Oregon
Portland	Moore, Maurice E.
Salem	Prime, Frank V., Jr.
	Pennsylvania
Aliquippa	Yargats, Matthew M.
Altoona	Thompson, Karl R.
Avalon	Cosentino, Michael J.
Corry	Gray, James W.
Huntingdon	McClain, Richard W.
Philadelphia	Robinson, Henry W., Jr.
Philadelphia	Stewart, George G.
Plymouth	Young, Hamilton R.
Scranton	Saccone, Nicholas D.
Sharon	Anderson, John B.
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West Warwick	Szymkowicz, Thomas A.
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Greenville	Robertson, James C.
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Wessington Springs	Whitney, Wyman A.
	Tennessee
Dyersburg	Walker, Joe P.
	Texas
Ft. Worth	Tinkle, Lowell H.
Rockdale	Urban, Alonzo A., Jr.
	Utah
Salt Lake City	Thomas, Byron C.
	Virginia
Emporia	Tillar, Vernon I.
Richmond	Grandis, Morris D.
	Washington
Aberdeen	Smits, Paul A.
Veradale	Deviny, John E.
	West Virginia
Upper Tract	Mallow, John M.
	Wisconsin
Ashland	Thompson, Robert M.
Edgerton	Marsden, Ross L.
Jefferson	Schultz, William E.
Milwaukee	Crawford, James N.
Milwaukee	Feldman, Benjamin L.
Milwaukee	Mayerson, Jack J.
Milwaukee	Walton, John E.

DEATHS

McAnally, George D., New Orleans; School of Dentistry, Tulane University, 1924; died August 1; aged 49.

McAnally, William M., Trinidad, Colo.; School of Dentistry, Vanderbilt University, 1918; died July 29; aged 51.

McAuliff, Walter V., Brooklyn; School of Dentistry, University of Pennsylvania, 1906; died September 4.

McGrath, James H., Duxbury, Mass.; died August 3.

McMaster, William D., Belvidere, Ill.; Dental School, Northwestern University, 1901; died August 29; aged 75.

McWilliams, Burr M., Madison, Wis.; Chicago College of Dental Surgery, 1921; died August 24; aged 50.

Marleski, Alois E., Cleveland; School of Dentistry, Western Reserve University, 1916; died July 23; aged 56.

Martin, Howard T., Baltimore; Philadelphia Dental College, 1890; died July 28; aged 81.

Mau, Otto F., Wheaton, Ill.; died August 11; aged 70.

Mazeine, Raymond, New Britain, Conn.; School of Dentistry, University of Pennsylvania, 1901; died July 16; aged 66.

Moreland, J. D., Rome, Ga.; died August 9; aged 68.

Mossner, William F., Millington, Mich.; College of Dental Surgery, University of Michigan, 1932; died August 15; aged 39.

Muse, John D., Henderson, N.C.; died August 3; aged 52.

O'Dell, Martyn L., Galena Park, Texas; Texas Dental College, 1930; died August 3; aged 47.

Osborne, J. Ruffin, Boiling Springs, N.C.; died July 26; aged 86.

O'Sullivan, Gerald B. T., Fall River, Mass.; Tufts College Dental School, 1929; died August 4; aged 42.

Page, J. C., Fairbury, Ill.; died August 4; aged 86.

Pounder, Malcolm, Jones, Mich.; Chicago College of Dental Surgery, Dental Department of Loyola University, 1899; died August 12; aged 79.

Poyner, William L., Tulsa, Okla.; Western Dental College, 1917; died July 26; aged 52.

Preston, Lovell H., Manchester, N.H.; Dental School, Harvard University, 1920; died August 14; aged 50.

Putnam, Claude E., Jacksboro, Texas; State Dental College, 1909; died August 11; aged 64.

Rademacher, Bruce N., LeCenter, Minn.; College of Dentistry, University of Minnesota, 1923; died August 16.

Richard, John C., Richmond, Va.; died August 1; aged 83.

Rodden, Herbert H., Dover, N.H.; Baltimore College of Dental Surgery, 1920; died July 28; aged 50.

Rosencrans, Charles C., Chicago; died August 21; aged 76.

Schwartz, Sylvan A., San Francisco; died August 27; aged 48.

Scott, Bessie B., Worcester, Mass.; Tufts College Dental School, 1918; died September 2; aged 58.

Seids, Arthur C., Oklahoma City; Baltimore College of Dental Surgery, 1906; died August 15.

Sellers, Blaine H., Indianapolis; died September 3; aged 77.

Shaw, Vivian B., Bellingham, Wash.; Western Dental College, 1906; died July 10; aged 75.

Shay, Joseph W., Lewiston, Maine; Tufts College Dental School, 1903; died August 6; aged 68.

Sherwood, Charles E., Easthampton, Mass.; Dental Department, Baltimore Medical College, 1909; died August 2; aged 59.

Snider, Edward E., New York; New York College of Dentistry, 1904; died August 12; aged 65.

Sweet, Cyril F., Minot, N. D.; College of Dentistry, University of Minnesota, 1901; died August 24; aged 73.

Todd, George S., Spokane, Wash.; College of Dentistry, University of Minnesota, 1895; died July 30; aged 76.

Walker, Henry T., Denison, Texas; School of Dentistry, Temple University, 1886; died August 9; aged 90.

White, Alfred D., Springport, Mich.; died August 4; aged 80.

Whitney, J. Eugene, Muncie, Ind.; Indiana Dental College, 1905; died August 12; aged 66.

Whitney, John C., Wheeling, W. Va.; Cincinnati College of Dental Surgery, 1913; died July 21.

Wilson, William G., Erie, Pa.; School of Dentistry, Temple University, 1903; died July 31; aged 69.

Wright, James N., Pasadena, Calif.; College of Dentistry, Ohio State University, 1913; died August 11.

Zorn, H. E., New Orleans; died August 5; aged 88.

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Hospital Dental Service: W. Harry Archer, 804 Professional Bldg., Pittsburgh.

Operative Dentistry, Materia Medica and Therapeutics: J. Bernard Hutcherson, Starks Bldg., Louisville, Ky.

Oral Surgery, Exodontia and Anesthesia: George W. Christiansen, David Whitney Bldg., Detroit.

Orthodontics: L. B. Higley, 705 S. Summit St., Iowa City.

Partial Denture Prosthesis: Oliver C. Applegate, 216 S. State St., Ann Arbor, Mich.

Periodontia: Hunter S. Allen, Comer Bldg., Birmingham, Ala.

Practice Management: Gaylord J. James, 9400 Euclid Ave., Cleveland.

Radiology: H. C. Fixott, Medical-Dental Bldg., Portland, Ore.

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Nomenclature: Harry Lyons, Chm., Professional Bldg., Richmond, Va.
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Prosthetic Dental Service: F. W. Herbine, Chm., 230 Fifth St., Reading, Pa.
Relief: Thomas R. Cullen, Chm., 189 W. First St., Oswego, N. Y.; L. H. Jacob, Secy., Jefferson Bldg., Peoria, Ill.
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Scientific and Health Exhibits: Leo F. Marré, Chm., Paul Brown Bldg., St. Louis.

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ANNOUNCEMENTS

MEETINGS OF STATE SOCIETIES

State	Date	Place	Secretary	Address
Alabama	April 15–17, 1948	Birmingham	G. W. Matthews	1922 Tenth Ave., S., Birmingham 5
Arizona			B. K. Litt	68 E. Congress, Tucson
Arkansas			I. M. Sternberg	Merchants Bank Bldg., Ft. Smith
California	April 26–28, 1948	San Francisco	L. E. Linehan	450 Sutter St., San Francisco
S. California			M. E. Ralston	903 Crenshaw Bldg., Los Angeles 6
Colorado			R. A. Downs	724 Republic Bldg., Denver 2
Connecticut			E. S. Arnold	37 Linnard Rd., W. Hartford
Delaware			J. Krygier	309 S. State St., Dover
D. of Columbia			K. H. Wood	202-1835 Eye St., N.W., Washington
Florida	Nov. 10–12	St. Petersburg	J. I. Todd	433 St. James Bldg., Jacksonville
Georgia	Oct. 19–22	Atlanta	J. M. Heard, Jr.	Persons Bldg., Macon
Hawaii	Oct. 30–Nov. 1	Honolulu	J. H. Dawe	P. O. Box 39, Honolulu 10
Idaho			R. Sutcliff	Twin Falls
Illinois			P. W. Clopper	623 Jefferson Bldg., Peoria 2
Indiana			E. E. Ewbank	Kingman
Iowa			A. N. Humiston	417 Higley Bldg., Cedar Rapids
Kansas			F. A. Richmond	1008 Huron Bldg., Kansas City
Kentucky			J. L. Walker	640 Barbee Way, S., Louisville
Louisiana	April 8–10, 1948	Alexandria	J. S. Bernhard	407 Medical Arts Bldg., Shreveport
Maine			A. H. Garcelon	State House, Augusta
Maryland	May 3–5, 1948	Baltimore	J. H. Shackelford	706 Baltimore Life Bldg., Baltimore 1
Massachusetts	May 3–6, 1948	Boston	P. E. Adams	227 Commonwealth Ave., Boston 16
Michigan	April 12–14, 1948	Detroit	F. Wertheimer	Michigan Department of Health, Lansing
Minnesota	Feb. 23–25, 1948	St. Paul	L. M. Cruttenden	Lowry Medical Arts Bldg., St. Paul
Mississippi			F. C. Sneed	Osyka
Missouri	April 26–28, 1948	Jefferson City	C. W. Digges	Exchange National Bank Bldg., Columbia
Montana			C. S. Renouard	305 Phoenix Bldg., Butte
Nebraska			F. A. Pierson	Federal Securities Bldg., Lincoln
Nevada			L. G. Jacob	505 Chestnut St., Reno
New Hampshire			F. E. Williams	814 Elm St., Manchester
New Jersey	April 20–23, 1948	Atlantic City	J. G. Carr	407 Cooper St., Camden
New Mexico			J. S. Eilar	First National Bank Bldg., Albuquerque
New York	May 10–13, 1948	Syracuse	C. A. Wilkie	1 Hanson Place, Brooklyn
North Carolina	April 26–28, 1948	Asheville	C. W. Sanders	Benson
North Dakota			K. G. Allen	Fargo
Ohio	Nov. 9–12	Cleveland	E. G. Jones	185 E. State St., Columbus
Oklahoma			E. W. Wise	Medical Arts Bldg., Tulsa
Oregon			W. H. Hurley	922 Selling Bldg., Portland 5
Panama Canal Zone			T. W. Cagle	Box 243, Cocoli
Pennsylvania	May 11–13, 1948	Atlantic City, N.J.	E. R. Aston	421 Market St., Kingston
Philippine I.			G. A. Carreon	9 Broadway, Third St., N. Manila
Puerto Rico			R. Miranda	Box 747, Rio Piedras
Rhode Island			S. Ozarin	172 Thames St., Newport
South Carolina			J. R. Owings	201 E. North St., Greenville
South Dakota	May 9–11, 1948	Sioux Falls	E. W. Elmen	Sioux Falls
Tennessee	May 24–27, 1948	Memphis	E. J. Justis	Exchange Bldg., Memphis
Texas	April 12–15, 1948	Fort Worth	W. Ogle	313 Medical Arts Bldg., Dallas
Utah			S. Ballinger	1001 Tribune-Telegram Bldg., Salt Lake City
Vermont			J. A. Larrow	Middlebury
Virginia			J. E. John	804 Medical Arts Bldg., Roanoke
Washington	Jan. 29–31, 1948	Seattle	F. J. Dingler	1502 Medical & Dental Bldg., Seattle 1
West Virginia	July 5–7, 1948	White Sulphur Springs	C. J. Gavelda	Clarksburg
Wisconsin	March 30–April 1, 1948	Milwaukee	R. A. Mason	964 N. 27th St., Milwaukee
Wyoming			J. D. McNiff	208 Grand Ave., Laramie

MEETINGS OF STATE BOARDS OF DENTAL EXAMINERS

State	Date	Place	Secretary	Address
Connecticut	Nov. 18–22	Hartford	C. G. Brooks	302 State St., New London
Indiana	Nov. 3–6	Indianapolis	C. A. Frech	Gary National Bank Bldg., Gary
Kansas	Dec. 14–17	Kansas City	G. L. Teall Secy.	Box 71, Hiawatha
Minnesota	Jan. 5, 1948		E. E. Comartin	100 First Avenue Bldg., Rochester
Ohio	Oct. 13–18	Columbus	E. D. Lowry	79 E. State St., Columbus
Tennessee	Dec. 15-19	Memphis	J. J. Vaughn	1005 Medical Arts Bldg., Nashville 3
Texas	Nov. 16	Dallas	R. T. Weber	311 Capital National Bank Bldg., Austin
Wisconsin	Feb. 9–13, 1948	Milwaukee	S. F. Donovan	Tomah

OTHER MEETINGS

Name	Date	City	Secy. or Chm.	Address
American Academy of Dental Medicine, Luncheon and Round Table Discussion	Dec. 7	New York	W. M. Greenhut Secy.	124 E. 84th St., New York 28
American Association for the Advancement of Science, Subsection on Dentistry	Dec. 28	Chicago	I. Schour Secy.	808 S. Wood St., Chicago
American Board of Oral Surgery	Nov. 7–8*	Chicago	L. M. FitzGerald Secy.	718 Roshek Bldg., Dubuque, Iowa
American Dental Society of Europe	July 27–30, 1948	London	K. C. Campbell Secy.	88 Portland Place, London, W. 1.
American Society for the Advancement of General Anesthesia in Dentistry	Oct. 27	New York	M. H. Feldman Secy.	730 Fifth Ave., New York
National Board of Dental Examiners	Dec. 1–2†		G. L. Teall Secy.	Box 71, Hiawatha, Kan.
Annual Seminar for the Study and Practice of Dental Medicine	Oct. 19–24	Yosemite Valley, Calif.	M. G. Lewis Secy.	1618 Ninth Ave., San Francisco 22
Montreal Dental Club, Twenty-Third Annual Fall Clinic	Oct. 22–24	Montreal	M. L. Donigan Director	Drummond Medical Bldg. 1414 Drummond St., Montreal 2, Canada
Denver Dental Association, Forty-First Annual Mid-Winter Meeting	Jan. 11–14, 1948	Denver	K. F. Grove Chm.	1325 E. 16th Ave., Denver
New England Dental Society	Nov. 5–6	Boston	J. F. Barton Secy.	43 Farmington Ave., Hartford 5, Conn.
Midcontinent Dental Congress, Seventh Annual Meeting	Dec. 1–3	St. Louis	V. H. Frederich Secy.	Arcade Bldg., St. Louis
University of Buffalo, School of Dentistry Alumni Association, Forty-Fifth Annual Meeting	Oct. 14–16	Buffalo	E. L. Ruffing Publicity Chm.	233 W. Ferry St., Buffalo 13
Greater New York Dental Meeting	Dec. 8–12	New York	K. N. Donally Publicity Chm.	Room 106A, Hotel Pennsylvania, New York
New York Academy of Medicine, Twentieth Graduate Fortnight	Oct. 6–17	New York	I. Galdston Secy.	2 E. 103rd St., New York 29
Northeastern Society of Orthodontists	Nov. 10–11	New York	O. Jacobson Secy.	35 W. 81st St., New York
Odontological Society of Western Pennsylvania, Sixty-Sixth Annual Meeting	Oct. 28–30	Pittsburgh	W. E. Craig Secy.	Jenkins Bldg., Pittsburgh 22

*Examinations for certification.

†Examinations will be held in schools where there are five or more candidates.

INTERNSHIPS, EXTERNSHIPS, RESIDENCIES AND FELLOWSHIPS

Boston City Hospital, Boston. Oral Surgeon-in-Chief, Stephen P. Mallett.
The Children's and Infants' Hospital (a Unit) of Boston. Address Paul K. Losch, 300 Longwood Ave., Boston.
The Children's Memorial Hospital, Chicago. Administrator, Mabel W. Binner, 707 Fullerton Ave., Chicago.
City Memorial Hospital, Winston-Salem, N. C. Superintendent, J. B. Whittington.
Columbia University, School of Dental and Oral Surgery. Associate Dean, Bion R. East, 630 W. 168th St., New York 32.
Delaware Hospital, Inc., Wilmington. Medical Director, Delaware Hospital, 501 W. Fourteenth St., Wilmington 13.
Eastman Dental Dispensary, Rochester, N. Y.
Fellowships for Research and Graduate Work in the Dental Sciences, University of Rochester. Dean, George H. Whipple.
The Forsyth Dental Infirmary for Children. Director, Percy R. Howe, 140 The Fenway, Boston.
International Grenfell Association. Staff Selection Committee, 156 Fifth Ave., New York.
Jewish Sanitarium and Hospital for Chronic Diseases. Director, Leonard Kohn, Dental Division, E. Forty-Ninth St. and Rutland Road, Brooklyn 3, N. Y.
Joseph Samuels Dental Clinic of the Rhode Island Hospital, Providence.
New York Foundling, New York. Medical Director, Alfred J. Vignec, 175 E. Sixty-Eighth St., New York.
Notre Dame Bay Memorial Hospital, Twillingate, Newfoundland. Address John M. Konopka, 25 W. Independence St., Shamokin, Pa.
Richmond Freeman Memorial Clinic for Infants and Children, Dallas, Texas. Executive Director, Dora B. Foster, 3617 Maple Ave., Dallas.
University of California, College of Dentistry, San Francisco. Dean W. C. Fleming, University of California, Medical Center, San Francisco.
University of Illinois, Graduate School. Fellowships for Research and Graduate Work. Secretary, Committee on Graduate Work in Medicine, Dentistry and Pharmacy, 1853 W. Polk St., Chicago 12.
University of Illinois, Research and Educational Hospital, Chicago. Supervisor of Hospital Dental Services, Maury Massler, University of Illinois, 808 S. Wood St., Chicago, 12.
University of Oregon, Medical School and Hospitals, Portland. Administrator, Charles N. Holman, 3181 S.W. Marquam Hill Road, Portland.
Walter G. Zoller Memorial Dental Clinic, University of Chicago. Director, J. R. Blayney, 950 E. Fifty-Ninth St., Chicago 37.

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